

STATISTICAL,
DESCRIPTIVE, AND HISTORICAL ACCOUNT
OF THE
NORTH-WESTERN PROVINCES OF INDIA.

VOL. VIII.

PART I.—MUTTRA.

BY

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PREFACE TO MUTTRA.

PART I of this notice was compiled by Mr. H. C. Conybeare, and printed off as early as April, 1882. When Mr. F. H. Fisher left, the whole of Part III. and a portion of Part IV. had been compiled, but only half the volume had been passed through the press. The authors, to whom obligations are chiefly due, are mentioned in the note on page 2. It remains only to add that Part IV. has been in the main compiled from Mr. F. S. Growse's *Mathurá*, and that Mr. Growse has himself assisted in passing the proof-sheets of this volume through the press.

ALLAHABAD:
The 26th January, 1884. }

J. P. H.

ERRATA TO MUTTRA.

Page.	Line.	For	Read
2	10 of foot-note	there	these
3	Last line of column 3 of table.	92,737	929,737
4	12	S'adabad	Sa'dabad
4	3 of foot-note	believers	believers "
4	ditto	such	such
5	14	that Jalasar	Jalasar
6	13	reverting	reverting
7	16	authority	authority
10	2 of foot-note	a-tickala	articulata
12	5	Dhabala	Dibhila
12	12	Annakut	Annakut
14	10 and 11	Delete "the food perhaps of the	Lotus-eaters."
14	5 of foot-note	well-natured	well-nurtured
14	6 of foot-note	chur	churn
19	3	Kolia	Kolia
25	23	a affected	affected
26	8 from bottom	Kolia-Bhili	Kolia-Bhili
27	4 ditto	Jalasar-roads	Jalasar-road
27	ditto	Hishma-roads	Hishma-road
32	3 ditto	Delete "while the rest of the broad area is nearly deserted."	
32	2 of foot-note	Antlerries	Antlerrie
33	5 from bottom	Bhingson	Bhingson
33	4 ditto	Kolia	Kolia
38	4 of column 3 of table	Futala	Futala
49	8	16	14
64	18 from bottom	Sod	Sod
64	4 ditto	Via	Via
78	12	aha	aha
80	5 from bottom	Bila who	Bila (who
104	10	Chazari	Chazari
105	15	(Parantini and	(Parantini and
107	9 from bottom	Siddhi	Siddhi
108	12	Siddhi	Siddhi
114	2	80-5-75	80-5-75
158	1st indentation	Mathura	Mathura
163	11 from bottom	Sindhia Basji	Sindhia, Basji
73	9 ditto	Sindh	Sindh
78	1 ditto	excavators	excavation
191	10 and 11 from bottom,	Delete "Though the Jits still had no number no number numbers, the proprietors of the land are and 1073. It has been Brahmins."	
95	4	1832	1832
90	15	Ar Lashkar	Ar Lashkar
92	9 from bottom	a name	a name
113	14 ditto	Min Singh	Min Singh

STATISTICAL, DESCRIPTIVE, AND HISTORICAL ACCOUNT OF THE NORTH-WESTERN PROVINCES.

MUTTRA (MATHURA) DISTRICT.

CONTENTS.

	<i>Page.</i>		<i>Page.</i>
PART I.—GEOGRAPHICAL AND DESCRIPTIVE.		PART III.—INHABITANTS, INSTITUTIONS, AND HISTORY.	
Boundaries, area, &c. ...	2	Population by successive censuses ...	59
Administrative sub-divisions ...	<i>ib.</i>	Origin of caste ...	63
Changes in those sub-divisions ...	3	Castes and tribes ...	67
Civil staff and military force ...	7	Occupations ...	63
General scenery ...	<i>ib.</i>	Emigration ...	84
Physical features ...	9	Towns and villages ...	85
Hills ...	11	Dwellings and religious buildings ...	<i>ib.</i>
Soils ...	12	Architecture ...	86
Barren lands, pasturages, plantations ...	14	Archæology ...	89
Water-level and nature of water-supply ...	15	Forts ...	96
Local classification of waters ...	16	Food ...	97
Rivers ...	18	Customs ...	<i>ib.</i>
Canals ...	22	Religion and Christian missions ...	<i>ib.</i>
Influence of canals on health ...	25	Public instruction ...	107
Lakes or lagoons ...	26	Language ...	110
Navigation ...	<i>ib.</i>	Literature ...	114
Other means of communication; the three railways ...	27	Post-office and telegraph ...	115
Roads ...	29	Police ...	<i>ib.</i>
Road-avenue and ancient road-hostels ...	30	Jail ...	116
Bridges, ferries, and other river-crossings ...	33	Present area, revenue, and rent ...	<i>ib.</i>
Table of distances ...	34	Fiscal history ...	117
Climate and rainfall ...	<i>ib.</i>	Landholding castes ...	129
PART II.—PRODUCTS OF THE DISTRICT: ANIMALS, VEGETABLE, AND MINERAL.		Leading families ...	130
Animal kingdom ...	37	Tenures ...	135
Fish ...	<i>ib.</i>	Rents ...	137
Trees ...	38	Condition of the cultivating classes ...	138
Cultivated crops ...	40	Trade ...	<i>ib.</i>
Distribution of chief crops ...	42	Manufactures ...	141
Character of the cultivation ...	43	Fairs ...	<i>ib.</i>
Irrigation and wells ...	44	Wages and prices ...	143
Outturn of various crops and cost of their cultivation ...	47	Money-lending and interest ...	146
Increase in cultivation and irrigation ...	<i>ib.</i>	Weights and measures ...	<i>ib.</i>
Famines ...	49	District receipts and expenditure ...	147
Other foes to cultivation ...	55	Local rates and local self-government ...	<i>ib.</i>
Building materials ...	<i>ib.</i>	Municipalities and house-tax towns ...	149
		Income and license-taxes ...	<i>ib.</i>
		Excise, stamps, and registration ...	<i>ib.</i>
		Judicial statistics ...	150
		Medical charges and sanitary statistics ...	151
		History ...	152

PART I.

GEOGRAPHICAL AND DESCRIPTIVE.

MUTTRA, or more correctly Mathurá,¹ a district of the Agra division, forms part of the Jumna basin. It is bounded on the east by tahsíl Jalesar of Eta; on the north-east by tahsils Háthras, Iglás, and Khair of the Aligarh district. On north-west-by-north it marches with the tahsíl last named and with the Gurgaon district of the Panjáb; on south-west-by-west with the native state of Bhartpur. Its south-south-eastern boundary is supplied by tahsils Kiráoli, Agra, and Itimádpur of the Agra district. Muttra extends from 27°-13'-35" to 27°-58'-0" north latitude, and from 77°-20'-30" to 78°-17'-0" east longitude. It is in shape like an imperfect crescent whose convex side swells out south-eastwards, whose horns and hollow centre look up towards the north-east. Its length along its lengthiest section, from the junction of the Gurgaon and Bhartpur to the junction of the Eta and Agra frontiers, is about 60 miles; its greatest breadth, along a section at right angles to that just taken, is about 40. The total area of the district, according to the latest official statement,² is 929,737 acres, or 1,452·7 square miles. Its total population according to the census of the present year (1881) is 671,690, or about 462·9 to the square mile. But of both area and population further details will be given in Part III. of this notice. Enough here to add that in parganah Muttra lie imbedded several villages belonging to Bhartpur.

For purposes of administration, general and fiscal, the district or collectorate is divided into six tahsils or sub-collectorates. Administrative sub-divisions.

In these have been merged and lost 16 of the ancient sub-divisions known as parganas or baronies. The jurisdictions of civil and criminal justice are the two *munsifs* or petty judgeships and the 24 *thánas* or police-circles³ respectively. The relative position of the various tahsils, munsifs, and thánas; the area, population, and revenue of the tahsils; and the names of

¹ The former is the official spelling; the latter the correct transliteration according to the system officially adopted in other cases. This notice cannot claim to be much more than a compilation from the scholarly *Mathura Memoir* (1880) of Mr. F. S. Growse, C.S., C.I.E., and from the *Settlement Report* (1879) of Mr. R. S. Whiteway, C.S. But the compiler has also to record his obligations to the tahsíl *Rent-rate Reports* of Mr. M. A. McConaghey, C.S.; to the yearly administration reports of the North-Western Provinces Government and its subordinate departments; to the records of the Board of Revenue, North-Western Provinces; to the *Archæological Survey Reports* of Major-General A. Cunningham, R.E., C.S.I.; and to brief notes, which in their places will be duly acknowledged, by various officers now or formerly posted in the district. But these have not been the only authorities. References to several well-known works, such as the *Supplemental Glossary* and *Indian Historians* of Sir H. Elliot, C.S., K.C.B., and the *Hand-book to Agra* (1878) of Mr. H. G. Keene, C.S., will be found scattered through the footnotes.

² Government Circular No. 64, dated 15th October, 1880. ³ To the police-stations of some circles are attached outposts (*chauki*). The total number of the latter is seven. But see below, sections on police.

the sixteenth-century parganahs from which those tahsils are descended, may be gathered at a glance from the following table:—

Modern tahsil or sub-collectorate (1861).	Ancient pargana or barony as entered in <i>Albar's Institutes</i> (1596).	Area in 1880.		Population in 1881.	Land revenue, 1880-81 (excluding cesses).	Police-circle or thāna (1881).	Munsifi or petty judgeship (1881).
		Acres.	Square miles.				
					Rs.		
1. Sādabad...	Mahāban, Jalesar, and Khandauli of sarkār Agra.	115,378	180·2	89,217	3,15,966	Sādabad, Sahpan.	Mahāban.
2. Mahāban,	Mahāban and Jalesar. ¹	152,817	238·7	116,829	3,14,228	Mahāban, Rāya, Baldeo.	
3. Māt ...	Mahāban of sarkār Agra and Nohjhil of sarkār Kol.	142,696	222·9	95,446	2,67,362	Māt, Nohjhil, Surfr.	
4. Muttra ...	Mangotra or Mangora, Mathurā and Maholi of sarkār Agra; Sahār of sarkār Sahār. ²	256,451	400·7	220,307	3,42,731	Muttra city, Muttra cantonments, Gohardhan, Aring, Sonkh, Ol, Fatah, Brindāban, Rasūlpur, Jait.	Muttra.
5. Chhāta ...	Sahār ...	163,660	255·7	84,598	2,01,278	Chhāta, Shergarh, Sahār, Barauna.	Kosi, Majhol.
6. Kosi ...	" ...	98,735	154·2	65,923	1,67,207	Kosi, Majhol.	
	Total ...	29,787	1,452·7	671,690	16,08,795		

show how small must have been the parganah named after the latter. Maholi, the Madhupuri of Sanskrit literature, but now an insignificant village, is four miles only from Mathurá or Muttra city. The place which gave its title to parganah Mangotla was still, in Sir Henry Elliot's day (1844), the site of a police-station. It has since, however, been divided into four shares (*patti*), of which each is accounted a separate village; and from the revenue-roll its name has been erased. The single parganah was afterwards cleft into three, called *Sonkh*, *Sonsa*, and *Aríng*; the last, a creation of early British rule, containing also parts of Sahár. Mahában contained the whole of the later parganahs, *Mát*, *Sonai*, and *Ráya*, besides 80 villages¹ of the later parganah *Sádabad*. Sádabad was formed in the reign of Sháhjahán (1628-58), when his famous minister, S'ad-ullah Khán, founded S'adabad town and subordinated to it all the surrounding country. That surrounding country comprised a few villages of Khandauli and 200 of Jalesar. The greater portions of Khandauli and Jalesar now lie in Agra and Eta respectively. But from Jalesar were detached also parganahs *Sahpau* and *Mursán*. Part of the last is now included in tahsíl Mahában and part in the Aligarh district.

Of sarkár Kol or Koil the only part which now lies in Muttra is Noh or *Noh-jhil*. The latter name, which means Noah's-lake, might be applied to any large flooded surface; and is actually given to the great sheet of water from which the parganah capital derived its name. The parganah itself was in later days always known as Noh-jhil; and the Noh of the *Institutes* can therefore be regarded as an abbreviation only. In Gurgáon, however, not far distant from the Muttra border, stands a salt-making town which bears the name of Noh *tout court*.

Like Kol, the Sahár prefecture had but one parganah in this district, and that was the home parganah *Sahár*. At some time during the long reign of Aurangzeb (1658-1707) the sarkár itself disappeared, being superseded as an administrative division by the new sarkár of Mathurá.² But the parganah remained; and till after Aurangzeb's death, till the dissolution of Muhammadan and the rise of Ját power, it remained undivided. The Játs (1712-76) dissolved it, however, into four parts. Of these one continued to bear the name of Sahár; two more became parganahs *Shergarh* and *Kost*; while the fourth, afterwards reunited with that last named, was called parganah Sháhpur. The Sháhpur

¹ Thus Sir Henry Elliot and Mr. Whiteway, but Mr. Growse says 10. ² After 1669 courtly historians were in the habit of calling Mathurá Islámpur or Islámabad. In the same way Brindában became Múminabad, "the town of true believers. But such names, imposed by the arrogance of a sometime bigoted minority, have seldom stuck. Delhi is seldom Sháhjahánabad, Agra rarely Akbarabad, and Gorakhpur no longer Muazzamabad. The title of Allahabad or Iláhábás has perhaps remained only because the old Hindu Prayág had, before its Muslim refoundation, been deserted.

village from which it took its title adjoins the Gurgáon frontier, and was the field of a half-forgotten battle (1720) between the emperor Muhammad Sháh and the rebel Sayyids of Bárho. From Sahár and a few villages of Sonkh was formed, late in the last century, parganah *Gobardhan*. This was, after the expulsion of the Játs, created by Sháh Álam's minister, Najaf Khán, as a fief for Raza Quli Beg. After the Great Rebellion (1857-58) the name of Sahár fell into desuetude, as the head-quarters of the tahsil which then included it were removed, for greater safety, to the large fort-like hostel (*sardí*) at Chháta.

On the death (1782) of Najaf Khán the sway of Delhi was once more overthrown, this time by the Marhattas under Sindhia. Sindhia in turn succumbed to Lord Lake; and by the treaty of Anjangáon, ratified on the penultimate day of 1803, most of what is now Muttra passed into the hands of the British. Of the sixteen parganahs above italicized all save Aríng were now in existence; of the remaining fifteen, and of that Jalesar, which till lately formed part of this district, the conquerors disposed in the following way:—Nohhl was included in the British district of Fatehgarh; Sádabad, Sahpau, Jalesar, Rúya, Mát, Mahában, Sonai, and Mursán, in the British district of Etáwa; and Muttra in the British district of Agra. But Gobardhan was granted free of assessment to Lachhman Singh, Ját, whose father, Ranjít, rája of Bhartpur, had assisted Lord Lake with 5,000 horses.

To favoured grantees passed also Kosi, Shergarh, Sonkh, and Sonsa, but who were their actual recipients is a rather doubtful question. In 1819¹ Mr. Holt Mackenzie mentions them as relinquished by Sindhia in 1808. Regulation XII. of 1806 annexes Sonkh, Sonsa, and Sahár to the district of Agra, setting forth that after the treaty of Anjangáon they had been a British gift to the Bhartpur rája, and that under treaty dated April 7th, 1805, he had restored them. But in Mr. Aitchison's copy of this treaty none of the said parganahs is even named. In 1808, when they were finally surrendered to the English Government, the Resident with Sindhia tells the Collector of Agra that they had been the untaxed domain of the Marhatta princesses Balla Bai, Baiza Bai, and Chumna Bai. In the treaty of Mustafápur again, which the British struck with Sindhia on the 22nd November, 1805, the former promise² to grant to the second lady an untaxed domain similar to that held by the first, and to make a smaller landed concession to the third. Both grants were to be in Hindústán. That to Baiza Bai, Sindhia's wife, was to be worth Rs. 2,00,000, and that to Chumna Bai, his daughter, Rs. 1,00,000 yearly. From all these facts Mr. Whiteway infers that, on the conclusion of the Anjangáon treaty, Sonkh,

¹Para. 145 of his Minute dated July 1st of that year.

²Article 9.

Sahár, and Sonsa were at once granted to the rája of Bhartpur, while Kosi and Shergarh were soon afterwards restored to Sindhia as provision for Balla Bai. After the defeat of Bhartpur by Lord Lake in 1805 the three former parganahs were probably resumed by the English and bestowed on Sindhia as a dower for Baiza Bai and Chumna Bai; while in 1808 all five tracts were probably restored to the British Government in lieu of a money compensation. But it would appear that, though paying no British land-tax, Shergarh and Kosi were considered part of British territory from 1803; Sonkh, Sahár, and Sonsa from 1806 onwards.

Gobardhan was annexed to the Agra district by Regulation V. of 1826. The preamble of that enactment records that the parganah was resumed in consequence of Lachhman Singh's death. But in the first Settlement Report, dated July 9th, 1828, the Agra Collector described this tract as reverting to English rule after the fall of Bhartpur in 1825. It seems probable, therefore, that the grant was resumed less by reason of Lachhman Singh's death than by reason of that year's war. In 1804 was formed the Aligarh district, and to it, from Fatehgarh and Etáwa, were transferred parganahs Nohjhil, Sádabad, Sahpau,

Ráya, Mát, Mursán, Jalesar, Mahában, and Sonai.
Formation of the Sádabad (1824) and Muttra (1832) districts. Mursán excepted, they were all in 1824 retransferred to the new district, which took its name from Sádabad. In 1832 the civil head-quarters of this district were removed to Muttra, which, from the outset of British sway, had remained a military station.

To the eight Sádabad parganahs were now added from Agra those seven others called Muttra, Gobardhan, Sonkh, Sahár, Sonsa, and Shergarh. From Sonkh and Sahár was formed parganah Aríng. A slight alteration of the frontier with Gurgáon was effected, the domain named Kharaut being received in exchange for that named Birúki. The tahsils of Nohjhil, Mát, Jalesar, Mahában, and Sádabad had seemingly existed before; now were created those of Sahár, Aríng, and Kosi. Thus, from parts of the older Sádabad and Agra districts, was formed in 1832 the subject of this notice, its 16 parganahs being distributed amongst eight tahsils.

In 1840 a border tract, including part of parganah Mursán, was annexed from Aligarh. It comprised, amongst other lands, the domains of Madím, Dunetia, Ár-Lashkarpur, and Sonkh; but this last, Sonkh, must not be confused with that already mentioned, which lies on the opposite or Bhartpur side of the district. Until 1874¹ no further changes of area took place. But in 1859

¹By a clerical error the settlement report makes this date 1872. Jalesar was, however, transferred on the first day of the financial year 1874-75.

tahsil Nohil and Mât were united under head-quarters at Mât; while the removal of tahsil Salâr's head-quarters caused it to be renamed Chhâta. For a similar reason tahsil Ating became in 1867 tahsil Muttra. In 1874 par-panch and tahsil Jalesar was transferred to Agra, but for the purposes of the land assessment then in progress continued to be considered part of this district. Muttra received no compensation until 1878, when to its home tahsil were added 12 villages from tahsil Farah of Agra.¹ At the opening (1879) of the operations which resulted in the current assessment, the parganas became six in all, and the only subdivisions recognised were the six existing tahsils.

In the last column of the above table were shown the limits within which original civil jurisdiction is exercised by the two
 Panchang. tahsils. The court of first instance east of the Jumna is the Mûhâban, that west of the Jumna the Muttra tribunal. But, from both sides of that great stream, claims, whose value exceeds Rs. 1,000, travel to the court of the Sub-Judge at Agra. The highest judicial authority is the Agra Judge, who decides appeals, both civil and criminal, and tries criminal cases on commitment from the Magistrates. The magisterial and revenue courts are those of the magistrate-collector and his subordinate staff, consisting as a rule of one covenanted officer, two deputy magistrate-collectors, the six tahsildars, and a bench of honorary native magistrates. These last, who one and all sit at Brindâban, number in the present year nine. The principal civil officials remaining to be mentioned are the civil surgeon and his native assistant, the district engineer, the canal engineer, the district superintendent of police, the assistant sub-deputy opium agent, the deputy-inspector of schools, the headmaster of the high school and the postmaster. It need hardly, perhaps, be mentioned that the chief executive officer of the district is the magistrate-collector. The local representative of the Empress, he exerts a more or less perfect control over almost every branch of the administration.

But the capital, Muttra, is a military as well as a civil station. In its
 And military force. cantonments is quartered a regiment of British cavalry. There is a chaplain, and the usual staff of an Indian garrison is in other respects complete. The civil district lies within the military district commanded by the brigadier-general at Agra.

If we exclude its eastern corner comprising Sâdabad and those parts of
 General scenery. The the adjoining Mûhâban which lie east of Baldeo village, Braj-mandal. modern Muttra coincides almost exactly with the Braj-

¹On the same date (1st October) the bulk of tahsil Jalesar was transferred from Agra to Etah; see Gazetteer, VII., 400.

mandal of Hindu topography. The Braj-mandal or Herd-circle is the country round Gokul and Brindában, where the divine brothers Krishna and Balarám grazed their cattle; and to make the tour of its circuit, which measures 84 *kos* (about 168 miles), is still a meritorious act of pilgrimage. The first aspect of this Holy Land is a little disappointing to the student of Sanskrit literature, who has been led by the glowing praises of the poets to anticipate a second vale of Tempe. A similarly unfavourable impression is produced upon the mind of any chance traveller who is whirled along the dusty high road, and can scarcely see beyond the hideous strip of broken ground reserved on either side to supply the soil required for annual repairs. "Nothing," writes Jacquemont in 1829-30, "can be less picturesque."¹ The general flatness of the land is as depressing as elsewhere in the plains of these provinces. The soil, being sandy and thin, is unfavourable to the growth of large trees. For the same reason the dust is, in most months, deep on all the thoroughfares; and, if the slightest air is stirring, rises to blur the landscape in a dense and cloudy haze. The Jumna for two-thirds of the year meanders sullenly, a mere rivulet, between wide expanses of sand bounded by monotonous flats of cultivation, or by high banks which the soon-spent force of contributory runnels has cracked into unlovely chasms and ravines naked of all verdure.

The general poverty of Braj-mandal is the inspiration of a popular Hindi couplet, in which Krishna's neglect to enrich the land of his birth with any choicer product than the wild caper² is cited as an instance of his wilfulness. Mr. Growse translates as follows:—

' Krishna, you see, will never lose his wayward whims and vapours;
For Kábul teems with luscious fruit, while Braj boasts only capers.'³

In the rains, however, when all pilgrimages are made, the Jumna is a mighty stream, a mile or more broad. Its many tributary watercourses as well as all the ponds are filled to overflowing. The rocks and hills are clothed with foliage; the dusty plain is transformed into a green sward; and the smiling prospect goes far to justify the warmest panegyrics of the Hindu poets, whose appreciation of the scenery, it must be remembered, has been intensified by religious enthusiasm. But at all seasons of the year, perhaps, the landscape has a quiet charm of its own. A sudden turn in the winding lane reveals a grassy knoll with stone-built well and overhanging *pípal*;⁴ or some sacred grove, where gleaming tufts of capers and the white-blossomed *arúsa* weed are dotted about between the groups of weird *pílu*⁵ trees with their clusters of tiny berries and strangely gnarled and twisted

¹ His description applies, however, rather to the west-Jumna than to the east-Jumna part of Braj-mandal
² Karil, *Capparis aphyllá*.
³ *Ficus religiosa*.
⁴ *Salvadora persica*.

trunks, all entangled in a dense undergrowth of prickly bushes; while in the centre, bordered with flowering oleander and *nivāra*, a still cool pond reflects the modest shrine and well-fenced bush of holy basil that surmount the raised terrace, from which a broad flight of steps, gift of some thankful pilgrim from afar, leads down to the water's edge.

Having said so much for general scenery, we pass to the preciser but less readable details of geographical description. Muttra lies, as already mentioned, in the basin of the Jumna. Visible from almost every part of the Bhartpur and Gurgāon borders, low hills in a few scattered spots protrude across the former to invade the district itself. But that district may, nevertheless, be described as a plain, sloping, at the rate of about 1·28 feet per mile, in the direction of the river's course. The descent is therefore from north-north-west to south-south-east, and the elevation above sea-level, about 620 feet in the former quarter, falls to about 566 in the latter. The hills nowhere rise more than 200 feet above the plain. Walled by ravines and sand-dunes, the broad Jumna-cutting rarely sinks more than 30 feet below it. The lowlands beside the river are as usual called *khādir*; and the upland plains above it, *bāngar*. The country is now everywhere cultivated and cannot even boast the usual allowance of plantations. But here and there linger a few patches of scrubwood tending to justify the accusation of wildness which in 1825 Bishop Heber brought against it. The herds of antelope are so numerous that one seldom travels many miles along a bye-road without seeing a black-buck, followed by his harem, bound across the path. The chief natural peculiarity of the district is, however, the want of rivers. Its one perennial stream, the Jumna, divides it into two not very unequal portions, the eastern of about 641 and the western of about 810 square miles.

The eastern portion, which contains in south-eastward order tahsils Mát, Eastern Muttra. Mahāban, and Sádabad, is a fair sample of the scenery usually found in the tract (Dúáb) between the Jumna and Gauges. Abundantly watered by both wells and rivers, it is also carefully cultivated. Its luxuriant crops and fine mango-groves indicate the fertility of the soil, and render the landscape not unpleasing to the eye. Though of little interest to the historian and the antiquary, it is to the farmer and the economist by far the most important part of the district. The agricultural population is denser than in western Muttra, and its predilection for living in scattered hamlets gives the country a less solitary air. Two intermittent streams, the Pathwāha and the Jhirna, carry towards the Jumna the drainage of northern Mát and central Sádabad respectively. A few villages of the former are watered by a

distributary from the Mát branch of the Ganges canal. Above Bhādaura of tahsíl Mát several old beds of the Jumna have transformed themselves into lagoons. The wavy ridges of sand which flank the stream stretch further inland than on the opposite side of the water. Isolated dunes may be seen miles eastwards, on the uplands, whither they were probably blown by the wind. Below Bhadaura the river-bank becomes gnawed into ravines, which are dwarf likenesses of those in the trans-Jumna tract of Agra.¹

The western part of the district includes in south-eastward order the Western Muttra. Kosi, Chhāta, and Head-quarters tahsils. Its surface is perhaps less uneven than that of eastern Muttra; but it is slightly hog-backed, its line of highest elevation lying, though parallel to the Jumna, at some distance from both river and Bhartpur border. The rural inhabitants eschew hamlets and sleep in semi-fortified villages. This centralization is partly due to the quality of the water, which in outlying spots is often undrinkable; partly to the great sanctity of some of the village sites as compared with those on the east of the river; but chiefly to historical causes dating from the last century, when such strongholds were needed to protect the husbandman from the onslaughts of the Jāts and the Marhattas. Most of the larger villages, as well as the large towns of Muttra, Brindāban, and Kosi, lie on this side of the Jumna. Except that boundary river, the tract can boast no stream. It has no marshy spots beyond the hollows (*dahar*) where the rain-water stands for a few days. The only well-marked lines of drainage are those two known as the "Western Depressions." Rounding the Barsāna hills, the first or northernmost drains the western edge of tahsíl Chhāta and the north-western corner of tahsíl Muttra. The second or southern line starts from Gobardhan and passes through Sonkh and Bhartpur into Agra.² Down both, after heavy rain, speeds an occasional flood.

Save along its very banks, no mangoes shade this side of the river. The untilled spaces would be almost bare but for their stunted coating of wild jujubes,³ or their sparsely scattered acacias and tamarisks.⁴ Perched on natural mounds or heaps of ancient ruins, many of the villages rise bleak and devoid of trees. But near others, especially near those of older standing, lie large commons known as reserved lands (*rakhya*) or kadamb plantations (*kadamb-khandi*). The poorer specimens are merely unreclaimed patches covered with wild capers,⁵ pilu, and other stunted growths; but on the better may be seen fine trees, such as *kadambs*,⁶

¹ Gazetteer, VII., 411-12.

² See preceding volume, pp. 412, 430.

³ Jharber.

Zizyphus nummularia.

⁴ *Acacia Arabica* (babūl); *Tamarix articulata* (farās).

⁵ Karil.

already mentioned; *hūs*, *Capparis horrida*;

⁶ *Anthocephalus cadamba*.

which make these reserved lands look like bits cut out of a real forest. Thus shaded, they are often the pleasantest camping-grounds in the district. Many are of considerable size. The largest in Kosi, Kámur, covers 513 acres; Pisaya, the largest in Ohhúta, 122. In some cases, such as those of the numerous waste lands about Nandgáon and of the Cuckoo forest (*Kokilaban*) at Great Bathen, the woods are preserved because they are sacred as places of pilgrimage. But in all instances these scraps of wilderness are regarded with strong religious veneration, and an awful curse is supposed to fall on those who reclaim and plough them.

The one great need of the west-Jumna tract is water. The rainfall has indeed few channels by which to escape, and the fields are given the advantage of its almost every drop. But the generally saline character of the wells prevents, when no rain falls to freshen them, their use. Where water is plentiful, as round Sonkh of tahsil Muttra, the industry of the Ját cultivators is amply repaid; and the construction of the Agra canal, which pierces the tract from end to end, has therefore proved a vast advantage. The only large lagoon is an old bed of the Jumna, in the south of tahsil Muttra. Below this lagoon the banks of the river are scored by ravines resembling those on the opposite bank; but there is a long stretch of such erosions higher up, between Shergarh and Brindában. Elsewhere the shore consists of sandy downs, in some places sparsely cultivated, but in most producing only tall *sarpai* grass.

In the three western tahsils just described lie the only hills of the district.

Hills.

These petty eminences belong to several distinct ranges. The most northerly is the Charanpahár in Little Bathen of Kosi—a low heap of stones about 400 yards long and 10 feet high, with a temple on its ridge. The elevation nearest to this ridge is the Nandgáon hill, some six miles further south-west. About 880 yards long, the latter is covered by the hovels of Nandgáon, the home of Krishna's foster-father; and crowned by a temple sacred to that adoptive parent of divinity. Four miles south again lies the chief range of hills in Muttra. Beginning at the village of Unchágáon, the main line runs along the Bhartpur frontier; and for four or five miles, as far as Nahra, the hill crest forms the district boundary. The range is covered with rough boulders of the same character as the hills themselves. It is for the most part entirely barren, even of trees. Rising suddenly to a general height of about 200 feet above the plain, it is impassable except to unladen ponies or persons on foot. The denudation from the hills has produced at their base a broad belt of sand which, locally known as *wal*, is devoted almost wholly to inferior autumn crops. Beneath it lie boulders, the continuation

of the neighbouring range, which in composition they resemble. About three-quarters of a mile from the main chain, and parallel to it, rise three detached hills. The southernmost, on which stands the village of Rankauli, is some 440 yards only in length. About half a mile beyond is a smaller hill, severed by a narrow pass from another which rises abruptly at Dhabala, to end as abruptly at Barsāna, two miles further north. The Barsāna height is crowned by several temples sacred to Rādhā, the favourite mistress of Krishna: and the village of Mānpur occupies a depression in its centre. From this Mānpur northwards half the hill is densely wooded with the curious *dho*,¹ and herein affords a contrast to the Rankauli elevation, which has but few trees. Between these outlying hills and the main range the soil is almost pure sand.

In tahsil Muttra the principal range is the Rājgiri or Annākut of Gohardhan. This, which Krishna is fabled to have supported for a whole week on the tip of one of his rather numerous little fingers, is about five miles long. At its northern end hardly more than a heap of stones, it rises at the southern to some 100 feet above the plain. The rock is according to Mr. Whiteway quartzose, according to Mr. Growse limestone. The former is more likely to be right; for, as northern outliers of the Upper Vindhyan series, all the hills in the district are presumably of more or less siliceous structure. Near Gopālpur, in the south of the same tahsil, is a curious elevation of the hard red earth seamed with ravines and containing nodules of quartz. It is far from any hills, but in formation resembles the hillocks at the foot of the Chhāta ranges. The Charanpahār and the Rājgiri consist chiefly of boulders; the other ranges, of rock *in situ*.

The soils of Muttra much resemble those already described in the Agra notice.² On the uplands they vary from *dūmat* or loam to *blūr* or sand. *Dūmat* is found sparsely, but least sparsely in Māt, Sādabad, and Kosi.³ The better descriptions are of a rich brown colour, differing from this to lighter shades; the latter, through still excellent, being not quite so fertile as the first. The area of *dūmat* is however small as compared with that of *piliya* or light loam, in which the prevailing soil there is a large admixture of sand. *Piliya* is, as its name denotes, rather yellow in hue; and it differs from *dūmat* in that it becomes lighter and more workable after rain, whereas *dūmat* becomes sticky and greasy. Like most things this *piliya* varies much in quality. The better kinds are equal to perfect loam, the inferior approach

¹ *Arceuthobium indicum*. ² *Gaz.* VII. 416-17. ³ In Kosi loam is known as *lari*, i.e., *lari* earth or *lari* earth. Though here fitting matter for a footnote only, this fact shall duly find its way into the text of the article on the tahsil itself.

nearly to sand. Clay or *mattiya* is found only in those depressions known as *tarai* or *dahar*. Hard and unyielding, it cannot, save in years of ample rain, be worked by native ploughs ; its favourite growth is gram.¹ *Bhur* is pure sand, but the name is applied also to those lighter kinds of *piliya* wherein sand predominates. Sand rising unevenly in hillocks is called *puth* ; and the level spaces between such hillocks are known as *pilaj*. It is worthy of remark how universally the real *bhur* and *puth* are accompanied by lowlying *tarai* or river-beds. It would seem that the action of drainage into such lowlands is to carry away the alumina from the upper soil, leaving only the sandy particles. Where this drainage has been long continued and the soil has become pure sand, the force of the wind blowing steadily in one direction drifts it into the *puth* hillocks just mentioned. In the ravines (*bchar*) of the Jumna the cultivation is not extensive ; and the soil, being largely mixed with nodular limestone (*kankar*) as well as denuded by drainage, is poor. On the uplands are no great tracts distinguished from one another by natural difference of soil ; the want of rivers, and other striking physical features, combine to render the surface singularly uniform. In valuing the capacities of soils, other points besides their mere productiveness must be weighed. Thus, the soils that are pure sand are not only less fertile in themselves than the various loams and clays ; but, from their greater readiness to part with moisture, are found wanting in years when the rainfall is scanty or ceases so early as to endanger the sowings for the spring harvest.

In the cutting of the Jumna the main soil divisions differ little from those on the uplands. Clay is the groundwork of all the firmer soils. In the bed of the Noh lagoon, and in other places where this soil is subject to the influence of stagnant water, the clay remains clay. Where, however, it is subject to the action of the main stream, the sand and vegetable matter suspended in the water mixes with the clay to produce a rich steel-grey loam. In the *katris*, or fertile deposits on the edges of the river-bed, which are liable to yearly flooding, this is found in its highest excellence. On the pure sand of the river-bed itself are grown in the dry season very good melons.

But, here as elsewhere in the Agra division, more importance is attached to the artificial advantages than to the natural combination of the soil.² The land may be watered or dry, near or distant from the homestead. Throughout the district, therefore, all arable soil is classed under two heads :—*first*, according to its opportunities of

¹ Chana, *Cicer arietinum*, the *Cece* of Italy.

² See preceding vol., pp. 10-11.

irrigation; *secondly*, according to its accessibility. The fields capable of artificial watering are styled *chāh*; all others *khak*.¹ Those nearest the village are known as *bāra*, those rather more remote as *manjha*, and the furthest away as *bārha*. The combinations of the two classes give six varieties, and ordinarily no others are recognized.

It is in truth artificial advantages, such as greater facilities of irrigation, and the rather greater prevalence of careful Jāt husbandmen, which render eastern more fertile than western Muttra. The soil of the cis-Jumna is on the whole quite as good as that of the trans-Jumna tahsils;² and the weed *baisuri*, the pest of the latter, is in the former replaced by the useful wild jujube, the food perhaps of the Lotus-eaters. The prevailing natural mould of both tracts is an easily worked and productive Piliya, rising in places to the dignity of a rich brown loam. On the west of western Muttra, the proximity of the hills produces a line of lighter soil; on the west of eastern Muttra the Jumna sands stretch further inland than on the opposite bank; but in both parts of the district the cultivated crust is very similar.

Of the total area 114·3 square miles, or 7·8 per cent., is recorded as barren. Barren lands, pasturages, and by water other than that of the Jumna. But by far the greater part consists of the ravines which fringe that river. On its left bank lie a few patches of slightly brackish soil; but the district might be fruitlessly searched for any true example of a salt-blotched³ plain. Such plains elsewhere afford good pasturage; but here the principal grazing-grounds are the Jumna ravines and the leafy commons of the three western tahsils. In eastern Muttra, too, when a larger border than usual of the Noh lagoon is left dry, the villagers leave that border fallow, driving their cattle to browse on its short sweet turf. Droughts may destroy all fodder elsewhere, but the grass of this oasis is ever green. In famine years people travel from Muttra, 30 miles distant, to collect bundles for sale. But the glory of the district as a pasturage has departed. To show that Muttra was once far more pastoral than agricultural, no recourse to the legends of Krishna's early life is needed. That fact is fully attested by many a place-name. Thus Braj⁴ signifies "a herd;" Mathurā probably means "the town of churns;" Gobardhan is "the nurso of cattle;" Gokul; "the cow-pen;" Māt, "the milkpail;" Bathon, "the

¹ Persian *chāh*, a well, and *khak*, dust. ² By the cis-Jumna tahsils is here and hereafter meant those which lie on the same side of the river as the district capital. ³ Gazetteer, VII., pp. 11-13. ⁴ Mr. Growse quotes from the *Harivansa* the following lines relating to Braj:—

"(a) A fine country of many pasture-lands and well-natured people, full of ropes for tethering cattle, resonant with the voice of the sputtering churn and flowing with buttermilk; where the soil is ever moist with milky froth, and the stick with its circling cord sputters merrily in the pail as the girls spin it round."
 "(b) In homesteads gladdened by the sputtering churn."

place in Kosi and in wells between 8,000 and 10,000 feet distant from the canal or distributary; the highest, 74 feet, in Chikāta and in wells at a distance of under 2,000 feet. Several disturbing circumstances, such as the time of year and the propensity of water to percolate along natural drainage lines, prevent such statistics from attaining universal accuracy. But the fact remains that in the vicinity of canals the distance of water from the surface diminishes. Percolation from the canal tends, moreover, to retain the water-level at a uniform height in both hot weather and cold, in seasons both of drought and of heavy rainfall. In years of defective rain and in wells unaffected by the canal, the distance from the surface of course increases. The measurements of 63 wells, after the drought of 1877, showed that the average fall was 2·7 feet.

It has been above noted that in the west Jumna tahsils the well-water is often brackish. But, though less frequently, the pure element is sometimes found impure in the east Jumna tahsils also. Its quality is unluckily a question which can rarely be solved until the well shaft is actually sunk. There are some long stretches of country whose wells will be always alike; but it is more usual to find, in the same village, water of every variety. In the deep diggings for the Agra canal it

was curious to remark how often and how completely the nature of the substrata differed. In one place would be exposed a vein of pure clay mixed with nodular limestone; whilst, hard by, the whole under-soil would be impregnated with salt. A well sunk in the first locality would yield sweet, in the second, brackish and perhaps injurious water. Well-sinking is therefore a lottery. No statistics can show the prevalence of bad or good water, because more wells are dug where the chance of tapping good water is greatest. But the proportion of existing wells recorded as absolutely sweet is 54 per cent. on the left and 51 per cent. on the right bank of the Jumūna. The weed *baisuri*, already mentioned as harassing eastern Muttra, rarely appears on the surface below which sweet water lies. But as it does not always accompany bad water, and as it does not grow west of the river, its presence or absence is not a completely satisfactory test. The worst liquid probably is that found in the north-west of the Muttra and the south-west of the Chhāta tahsils. Here, in one or two places, drinking-water can be obtained only from the village-pond or from shallow percolation wells sunk close by. And when summer has dried their pond, the residents must travel, often some distance, to the next village blessed with sweet water.

The experience of the natives, who must be recognized as *connoisseurs* of what is their almost only drink, has divided waters. Local classification of waters. into twelve classes. And, for what it is worth, this somewhat empirical classification may be shown as follows. The water may be—

1. *Mitha* or sweet.
2. *Khāri* or brackish.—This kind leaves a slight white deposit in the little irrigation conduits and on the fields watered therefrom. When the rains have been heavy it is excellent drink for wheat, barley, tobacco, cotton, and just millet; but when the rains have failed, the produce is poor. To other crops such water is not applied.
3. *Karwa* or bitter.—After irrigation with this variety the field turns a rusty colour, while the top-soil becomes light and feathery. The spring crops sown in that field look yellow and bilious, and their outturn of straw is small. The water is given after good rains to the same crops as is the kind last mentioned, but without rains is useless.
4. *Teliya* or oily.—This has an unpleasant taste, and strongly reflects the yellow of any brass vessel in which it may stand. Watered with this, the land blossoms out into a yellowish efflorescence; and becomes so firmly

caked that the rainfall lingers long on its surface. Teliya has, however, an improving effect on wheat, cotton, and jûr.

5. *Marmara* or *sakhar*, that is, perhaps, marbly or rocky.¹—In this the brackish element is so slight that the water tastes almost sweet. It leaves on the land which it irrigates a few white spots.

6. *Mitha bînga* or *matwâra*, which is described as highly nutritious. As in the last case, the suspicion of salt is trifling. The water is good for land cropped twice yearly; but the sugarcane, which on rare occasions is planted therein, yields thin and poor syrup (*gur*).

7. *Khâri-bânga*.—This also is a fair water of slightly brackish taste. The fields which it irrigates become infected with a white rash. After good rains it may be applied to twice-cropped lands; and, if watering before ploughing² has been made from a sweet well, quickly advances the growth of the staples watered. But for sugarcane, vegetables or indigo, it is useless.

8. *Mitha-teliya* or oily-sweet.—Like teliya proper, this cakes the soil, preventing the rapid absorption of rainfall. When allowed to stand in a vessel, it exhibits on its surface an oily scum, and the soil watered with it displays a slight yellow efflorescence. For the crops last mentioned this water also is worthless.

9. *Khâri-teliya*.—Except that it has a salt taste and leaves an efflorescence like *reh*, this water differs little from No. 8. It is not, however, quite so good.

10. *Khâri jarel*.—A disgustingly saltish liquid, that to ground watered therewith imparts a feathery rusty-white efflorescence. The best that can be said of this water is that after good rains it does not utterly ruin some crops.

11. *Karwa teliya*.—This too is a horribly bitter water which, save that it has an oily scum if allowed to stand for any time, differs but little from the last.

12. *Marmara-teliya*, *sakhar-teliya*, or oily brackish.—This in quality intervenes between Nos. 8 and 9, but produces very fair crops if the rains have been good.

"The worst kinds," writes Mr. Whiteway, "are of course uncommon, though in a village it is common enough to be told that the very birds if they drank the water would die (*"chhiriya pîwe to marjâe."*) I have seen cases in which the use of a well for a single season some years ago burnt all the heart out

¹*Marmar* (marble) is one of the Greek words which has found its way through Arabic and Persian into Urdu. *Sakhra* is an Arabic, Persian, and Urdu word, sometimes meaning "rock."

² This watering before ploughing is called *pareh*.

of the land, turning it into *usar*; but this is also not common. Sometimes, however, the autumn crop is a failure, because in the previous spring harvest the water of a particular well was used. It will be noticed how many of the above kinds of water are only useful when the rains are good. As a fact none of them except *mitha* and *mitha-bānga* are good for the germination of the seed; but when once this has happened, *khāri*, *khāri-bānga*, *marmara*, *mitha-bānga*, and even *marmara teliya*, are better for wheat and barley than purely sweet water. There is another thing against these wells. If the water be not absolutely sweet, in a year of drought its qualities become exaggerated. The salt well becomes saltier and the oily well oilier."

The one river of Muttra is, as already written, the Jumna. Its ancient name, Yamuna, means the sister of Yama, god of Streams; the Jumna. Hell.¹ Of this sacred stream much has been said in other notices;² and, save some account of the banks between which it here flows, little remains to be added. First touching the district at Chaudras of Kosi, on the right bank, it after a winding course of about 100 miles, leaves Muttra at Mandaur of Sādabad on the left. It has meanwhile divided the Māt from the Kosi, Ohhāta, and Muttra tahsils; tahsil Mahāban from Muttra and the Agra district; and tahsil Sādabad from the Agra district alone. On or near its banks stand nearly all the larger towns: Muttra, Brindāban, and Shergarh on the right, on the left shore Mahāban and Māt. The banks of the river are at first sandy and low; but as it advances in its course the sides of the cutting become steeper, and raviny cliffs begin to intermingle with the sand-slopes. The manner in which ravines and sandhills alternate depends on certain conditions in the direction of the stream. Where the Jumna flows in a sweep or curve, ravines are almost invariably found on the concave side, whilst on the opposite or convex side sandhills are as invariably met with. On a change in the direction of the curve

¹ Yama (who derives his name from *yam*, to restrain or coerce) is regarded in post-Vedic mythology as the appointed judge and restrainer or punisher of the dead. He corresponds therefore to Pluto and to Minos. Yamuna personified as Yami is Yama's twin sister, and hence regarded as a daughter of the sun. In the 10th book of the Rig Veda occurs a dialogue in which Yama endeavours to seduce her, while she very naturally rejects his offers. A Paurānik legend says that Balarāma, the brother of Krishna, once ordered Yamuna to come to him and that she disobeyed. He therefore plunged his ploughshare into her banks, compelling her to quit her ordinary course and follow him whithersoever he went. At last, after she had watered all the country, he let her go. Professor Wilson thinks that this legend alludes to the construction of irrigation canals from the Jumna. Hindu princes had probably anticipated the Musalmāns in the excavation of such works. See *As. Res.*, VIII., 402 (Colebrooke); or Moor's *Hindu Pantheon*, 305; *Williams's Dictionary*, art. "Yama" and "Yamuna"; and *Chambers's Cyclopædia* (Goldstucker), art. "Yamuna."
² See *Gazr.*, I., 68-69 (Bānda), 142-45 (Hamirpur), and 195-96 (Jalaun); II., 148 (Sahāranpur) and 354 (Aligarh); III., 8-9 (Bulandshahr), 210-11 (Meerut), and 453-54 (Muzaffarnagar); IV., 229-30 (Etāwa) and 477-78 (Mainpuri); VI., 11-13, 16-18 (Cawnpore); and VII., 421-22 (Agra).

ravines and sandhills change places also; and, in the few instances where the river preserves a straight course for any distance, ravines and sandhills occur on both banks. On the right bank at Koela of Muttra, and on the left at Bhadaura of Mát, the ravines finally oust the sandhills and begin a career which, so far as concerns this district, is unending. From the ravines there is a sudden drop of 15 or 20 feet to the saucer intersected by the Jumna. But in very few places does the river run directly under this bluff. Between the water and the cliff intervenes as a rule a wider or thinner strip of alluvial soil. In some villages this strip, covered by every rise of the stream, changes yearly in shape and character; in others the deposit, being older, is raised above all save the highest floods; whilst elsewhere old trees, masonry wells, and inhabited homesteads show how long since the soil was thrown up. But the most ancient of these *khádír* lands are not altogether secure. The dilution, in late years and in Jaitpur of Chhátá, of houses, trees, and wells, proves that the river can be fickle even after long flowing in one course. Large areas have been marked off as subject to fluvial action. To the rule of *dhár dhurra*, or deepstream boundary, there are but two exceptions: Chaundras of Kosi has some land on the left bank, and Jahángirpur of Mát on the right. This latter exception was caused by a sudden and recent change of the stream, which, sweeping through the midst of the Jahángirpur lowlands, attached one half thereof to the opposite shore. As it flows on the river becomes more closely confined between its bluffs, and the edge of culturable land on either side grows more narrow and precarious. Towards the north from bluff to bluff averages two miles or more; towards the south hardly half a mile. The cultivation on the banks, where serried by ravines, is poor. The ravines themselves are of the usual unculturable character — scourged of all vegetable mould and rough with knobs of nodular limestone. But the lowlands beside the river are often exceptionally fertile. Their soil varies from sand to rich loam, the richest of the latter being found in the *katri* or yearly-flooded fields along the lip of the stream. Such land is of course found chiefly in Kosi, Chhátá, Mát, and the north of Muttra and Mabában; for here the Jumna-cutting is still of ample breadth. The commonest growths are spring crops and melons, both the birth of seasons when floods are impossible. But in the less exposed fields autumn produce, such as cotton, maize, and *juár* millet, is raised.

On its left or eastern bank lie several fertile depressions once occupied by the river itself. Of these the most important is the parábola-shaped hollow in which lies the Noh lagoon. The bulge of its curve is north-easterly. Leaving the modern bed of the river

Old beds: the Noh lagoon.

between Musmina and Faridampur on the north, it travels round by Kaulāna and Noh, to rejoin that bed between Lāna-Makhdūmpur and Firozpur on the south. The length round the outer edge of the curve is about 10 miles linear, and the area of the included lowlands about 13 miles square. From the local traditions and the look of the country it is clear that the Jumna has deserted this bed within comparatively recent times. The soils still very plainly mark where ran the old course of the river and where lay the sandbanks. Round the outer edge of the curve rises a steep cliff about 20 feet high, which is in many places hollowed out into rugged ravines. The inner curve encloses a mass of sandhills, such as are usually found in re-entering bends of the Jumna itself. All the villages round this great depression were colonized by Nohwār Jāts; and except in six cases¹ where the partition of ancient villages has resulted in a different arrangement, the cultivable fringe belongs to the adjoining village on the uplands. The lowland is uninhabited and almost devoid of trees or bushes. Dotted over it are many long serpentine ponds, which in flooded seasons unite into one connected sheet of water. But marsh there is none, as the surface is uneven and well-drained. During the last few years the Jumna has seemed to be yearning after its old bed. The Musmina mouth of the depression was once closed with an embankment, over which in the highest floods but little water trickled. Even this, before reaching the lowest part of the depression, was stopped by rising ground. At the other end of that depression, near Firozpur, was an old cut called the Dhundar nāla; and up this in times of flood ascended a backwater which, useful in supplying the ponds with drinking-water for the cattle, was insufficient to damage the autumn crops. But by the shifting of the stream the Musmina embankment has been cut away; and through the gap, during even moderate floods, a large body of water rushes into the lagoon. As a consequence much valuable land has been submerged, and remains submerged too long to be sown with a spring crop; while much has been so soured by excess of water that some years of good cultivation will be needed to restore it. Of late years many remissions of land-tax have therefore been found necessary. But the Jumna floods are not always injurious to the soil. Where that soil is a stiff clay, the sand suspended in the water combines with it to form a rich loam that without irrigation will bear wheat, but without the flood could have borne chickpea² only. A field thus enriched is said

¹ Dalu-patti, Sehū-patti, Sultān-patti, and Parsauli, formed by the disruption of Bajna; Lāna-Kasba and Lāna-Kaulāna severed from Bhénrai. *Lāna* means, according to Mr. White-way, (1) a long narrow field, such as is often thrown up by alluvion; (2) a *patti* or share. But he is probably mistaken in asserting that the word is peculiar to this part of the country. In Bijnor the tenure elsewhere called *bhaiyāchāra* is usually styled *lānādāri*. See GAZ., V. 321.

² The gram or chanā above mentioned.

pahs par jána. But before the centre of the depression is reached the water has parted with its suspended soil, and *pahs* is hardly known more than one mile from the modern bed of the river.

In years of drought the whole surface of this tract, except the grassy lands just surrounding the lagoon itself, become iron-bound with the baking heat. Unless there has been sufficient moisture to loosen the soil, native ploughs make little impression thereon. During the famine period of 1877-78 shallow wells were in places dug, and with the aid of the water thus obtained a small acreage was tilled and sown. The efforts yet made to grapple with the evil of the floods have failed. These efforts took the form of spurs which Government built at Musmina to recall the river to its proper course; and of deepening the Dhundar-nála, a process paid for by the surrounding landholders and intended to afford a quicker drainage from the centre of the lagoon. But the stream has swept away the spurs. And even had they stood, they would have proved of little service, unless accompanied by a restoration of the embankment.

From this first great depression a second branches near the town of Nohjhál;¹ and, passing eastward between Mubárákpur and Baghára into Barauth, crosses in the last village the bed of the Pathwáha rivulet. Down to its mouth at Sultánpur the Pathwáha still flows in this hollow. Along the left bank of the cutting runs a line of ravines. According to the traditions of the Nohwár Játs, the Jumna was leaving this depression when, some five hundred years ago, they colonized Palkhera. A third old bed quits the present course of the river near Uháwa of Mát; and, curving eastward by Akbarpur and Har-naul, rejoins the Jumna at Ilauli-Guzar, not far from the point of departure. This hollow also is scored on its left bank by small ravines; but the river would seem to have deserted it many centuries ago, as the legends relating to its origin are very faint. In neither of the two old beds last mentioned does the soil differ from that of the uplands. On both sides of the river lie other and smaller specimens of its discarded courses. But these, being in the rainy season filled for the most part with water, will be mentioned under the head of lakes.

The two remaining streams of Muttra are streams only after heavy rain.

Other streams; the Path-
wáha and Jhírna. Entering from Aligarh, the Pathwáha or Pathwáya joins the great river after a short course through the north of Mát. Its basin is narrow, and its general direction southerly. The

¹ Thus Mr. Whitaway, but according to Captain Wroughton's Revenue Survey map (1833-34) this second depression branches from the modern bed of the Jumna itself at a place called Chhinpahári.

Jhirna or Karwan is a more important channel. Though dry soon after the close of the rains, it during the rains themselves conveys down country a large body of water. On quitting Aligarh it runs south-eastward across Sādabad, passing the chief town of that tahsíl; and thence issues into Agra, where it joins the Jumna. This Jhirna drains a tiny vale from four to six miles wide; whose sides, like those of the Pathwáha basin, are bounded by denuded sandy slopes. Neither Jhirna nor Pathwáha retains in its pools sufficient water for the purposes of irrigation.

The only running water extensively used in irrigation is indeed that of the canals. Rolling along the ridge or backbone of the western Muttra plain, in a course roughly parallel to that of the Jumna, the Agra canal¹ pierces the hearts of tahsils Kosi, Chháta, and Muttra. It is prized not only as an irrigator but as a water route; and in the latter capacity has added some importance to the towns of Kosi, Sahár, and Aríng, which stand near its banks. Its total length in this district is 51 miles, but its offshoots measure 177½ more. Of this latter total 169 are contributed by the distributaries and 8½ by the Muttra navigation channel. The distributaries on the right or western bank are the Kosi, which, quitting the canal in Kosi, waters that tahsíl and Chháta; the Bhartpur, which begins and at present ends in the latter tahsíl; the Aríng, whose course lies within tahsils Chháta and Muttra; the Sonsa Minor, which in the latter sub-division leaves the Aríng and joins the main channel; the Fatehpur-Síkri and its branch, the Matakpur Minor, which, commencing in tahsíl Muttra, pass on into Agra. The left or eastern distributaries are more numerous. Flowing out of Gurgáon, and passing across the extreme northern corner of Kosi to end in the Jumna, the Hasnpur acts as both an escape-channel and an irrigator. The Shergarh, too, enters the district from Gurgáon, watering tahsils Kosi, Chháta, and Muttra. It is quitted on the eastern bank by the Shergarh left, on the western by the Chháta and Ajinanti "minor" branches. Starting in Kosi, the Sahár distributary traverses the same tahsils as the Shergarh, and, like the Shergarh, tails into the Muttra navigation channel. The Muttra and Farah distributaries begin and end in the Home tahsíl; the former throwing out, on its left bank, branches known as the Muttra left and Dhangáon Minor. The Agra distributary quits the canal on the right; the Agra navigation channel and the Kitham escape on the left bank, all in tahsíl Muttra; but from these there is in this district no irrigation. From the main channel, in the same tahsíl, the Muttra navigation channel (*Kishti-nála*) flows eastwards

¹ See preceding vol., p. 426.

to within a short distance of Muttra city; but does not as yet join the Jumna. It should be mentioned that, in order to avoid waste, a distributary usually discharges its surplus waters into the next distributary which taps the canal.

The following statement shows the area which, during 1879-80, this canal watered in each tahsil:—

Tahsil.	Acreage of land irrigated for		Total irrigation of year in acres.	Number of villages watered.
	Autumn harvest.	Spring harvest.		
Kosi	155	1,120	1,275	42
Chhāta	2,068	2,771	4,839	84
Muttra	6,551	9,392	15,943	243
Total	8,774	13,283	22,057	369

Though falling far below those of the famine years 1877-79, the total shows that since the opening of the canal there has been on the whole a marked increase in the area watered. During the first year in which the canal was open for both harvests, 1875-76, the irrigation amounted to 9,007 acres. It was 13,152 in 1876-77, 51,857 in 1877-78, and 49,620 in 1878-79. In 1879-80 the crops chiefly watered by flow or lift, for the autumn or the spring harvest, were cotton (4,461 acres), *bejhar*¹ (4,294), barley (4,095), wheat (3,503), indigo (1,300), and sugarcane (1,295). In the nature of the staples sown within its reach the canal has worked and is working great changes. Good water being now at his command, the cultivator finds it pay to produce the more precious crops. Indigo has been introduced, the area of sugarcane has greatly extended, and the coarse autumn millets² have been largely superseded by cotton. In the course of years poppy will probably become familiar and vegetables more widely cultivated; while the same land will, as a rule, be expected to bear two crops yearly. But to convert the Rājputs, Gújars, and Ahivásis of western Muttra from careless to careful husbandry much time will be needed.

If the canal has great advantages, it has also slight drawbacks. The rise which it has produced in the water-level has caused all the earthen (*kachcha*)

¹ *Bejhar* is a mixture of barley or wheat or both with gram or peas or both. *bājra*, &c.

² *Juāt*,

wells in villages, through which the main channel passes, to fall in. Owing to the scarcity of bridges over that channel, cultivators must sometimes travel four or five miles to reach their work. Though the main distributaries are made by Government, their branches or minor distributaries must be made by the landlords. A powerful proprietor has of course no scruple in applying for leave to take up the necessary land; but for a petty holder to incur the odium of procuring an excavation through the next village, or through his neighbour's field, is practically impossible. In spite, however, of this last obstacle the irrigation must infallibly spread. Where the water has once advanced it will rarely retreat. And the drought of 1877-79 gave its advance a great impetus.

As the accounts of the canal are not kept by district, it is impossible to compute, for Muttra alone, the receipts and expenditure. But the water-rate for irrigation is levied by the Collector, and this can be separately shown. It in 1879-80 amounted to Rs. 1,66,713, of which Rs. 31,830 were paid by owners and the rest by occupiers.

A distributary from the Mát branch of the Ganges canal at present waters six villages in the north of tahsil Mát. Its irrigation Mát branch extension of in 1879-80 covered somewhat more than 333 acres, Ganges Canal. whereof over 269 were sown for the spring harvest with wheat alone. The crops watered in autumn were cotton (40 acres), indigo (21), and garden or miscellaneous (3).¹ But eastern Muttra is not unlikely to some day obtain larger gifts from the Ganges canal. The branch of which the distributary just named is an offshoot starts at Dehra, in Meerut, and, though its irrigation now stops short in parganah Tappal of Aligarh, has been termed by anticipation the Mát branch. The water-supply in the Ganges canal is limited and would not formerly have sufficed for any further extension. But now that the Cawnpore branch is supplied by the Lower Ganges canal, there has become available a certain volume of which a portion has been prospectively allotted to the Mát branch. About five miles of the proposed extension were dug as a famine relief work in 1878;² but financial difficulties have postponed the completion of the project. The branch is planned to traverse the whole length of the Mát, Mahában, and Sádabad tahsils, from the Pathwáha to the Jhirna. It will perhaps end in three distributaries, which will carry its water as far as the Agra and Aligarh road.

¹ *Irrigation Revenue Report, 1880.* The Settlement Report gives a somewhat different account, saying that only those crops which do not need constant watering, such as mixed barley and gram, are grown. ² If, as is possible, the Mát branch never reaches the district, these five miles will not be the first memorial of famine-labour vainly wasted on projected canals. During the famine of 1868-69, and in the Murádadabad district, 18 miles of the Sambhal branch of an impossible Eastern Ganges canal were excavated. See *Gazetteer*, V., 256.

But the greater portion of the tract which it will command is already commanded by wells. By the latter can be watered 71 per cent. of Mát, 80 of Mahában, and 88 of Sádabad. "The soil of many of the villages," writes Mr. Whiteway, "is of that light character which does not bring out the full value of canal water as a productive agent. It is true that much of the well water now used is undrinkable, but it must be remembered how excellent much of this undrinkable water is for spring crops. Let the winter rains be never so good, a Sádabad or Mahában Ját will not be satisfied unless he has given his crop one or two waterings from his well. At the same time, so diverse are the qualities of the water of different wells that there are some villages which would greatly benefit by the introduction of canal-water."

On the sanitary consequences of canals the same writer makes remarks which deserve notice. A canal, he says, can affect health. health in three ways : *first*, by its effect on the climate generally, through surface irrigation; *secondly*, by interfering with natural drainage; and *thirdly*, by subsoil percolation. Though less obvious than the others, the influence of subsoil percolation is perhaps the most important. From the character of the well supply in this district, it is clear that in many layers of the undercrust exist certain salts or other soluble matters which, carried by percolation into the wells, render the water in those wells noxious to drinkers. So much will be allowed. It will be allowed also that if canal water soaks through a stratum impregnated with such salts or other matters, the liquid filtrating into the wells must be affected.

It has been mentioned that canals tend to raise the spring-level of the surrounding country. Plain it is that the rise of this level, by connecting the drainage-basins and bringing the water through strata formerly untouched by any percolation save that of the rainfall, must increase the chance of deleterious matter reaching the drinking-wells and affecting the general health. The effects would show themselves, not in the form of any special disease, but in so lowering the constitution as to render it more susceptible to any epidemic that might be raging. These effects would be most evident after heavy rain, when the spring-level rises and sickness is usually great; and least evident after drought, when the general health is notoriously good. In the cis-Jumna tahsils the rainy autumn of 1878 was one of the most unhealthy on record. On this part of the district the fever epidemic made a most searching attack. It showed special virulence in many isolated villages; but in no continuous tract did it show itself so destructive as along the line of the canal. Here too, though without accusing the canal, the people complained that their drinking-water

seemed changed. To test the mortality a census was taken of certain villages in tahsils Chhāta and Muttra. In 14 villages through which the canal passed the deaths had amounted to 9·3 per cent., or 93 per mille of the original population. In 12 others altogether unirrigated the centesimal and millesimal proportions had been but 4·0 and 40 respectively.

The two sets of villages were not more than five miles apart; and, except as regarded the canal, their conditions seemed precisely similar. Concluded, therefore, that the canal was a cause predisposing to the spread of the disease. In those villages of Chhāta through which the canal passed there was little or no canal irrigation; and here at least surface watering cannot have been the predisposing cause. The levels of the surrounding country show that there has been no interference with natural lines of drainage. Of Mr. Whiteway's three affecting processes there remains, by exhaustion, only the subsoil percolation from the canal; or in other words, perhaps, the rise which that canal causes in the spring-level. In but one of the canal villages was the rate of mortality less than in the non-canal villages; and in that one village the water-level had, for some cause unknown, remained stationary.

By its lakes or lagoons the salubrity of the district is little disturbed.

Lakes or lagoons.

Those reservoirs are as a rule discarded beds of the Jumna, and are therefore too deeply engraved to be surrounded by any large fringe of that malarious swamp which elsewhere and in the rains forms the debateable belt between land and water. The principal lagoon or *jhil* is that known as the Noh-jhil, in the north of tahsil Māt. The depression in which it lies has been already described. Situated about two miles east of the Jumna and one north of Nohjhil town, it is about $2\frac{1}{2}$ miles long by $1\frac{1}{2}$ broad, but in the rains swells to dimensions considerably greater. The only other large sheets of water in eastern Muttra are the Moti-jhil or Pearl-lagoon¹ near Māt and the jhil at Pānigāon, close by. Across the Jumna, in tahsil Muttra, lies the Koela-jhil; which, like all those hitherto mentioned, was probably scooped out by that river. On the uplands, where there was no river to form them, there are no lakes. The few ponds of Sādabad are small and dry up early in the cold season. Irrigation from lagoons or ponds is everywhere rare.

The only navigable waters are the Jumna and the Agra canal. The former used within the memory of children to bear from the north large quantities of salt and cleared

Navigation.

¹ This title is very common. A Nawāb of Oudh bestowed it for instance, on the Bahadur Tal of Basti and Gorakhpur, the finest sheet of water in those provinces.

cotton; from the east large quantities of sugar, rice, tobacco, and spices. But the road of iron over in Upper India beats the road of water out of the market; and this traffic has been greatly checked by the opening of the Muttra and Hâthras Railway. In 1878 about 130 boatloads of wood and cowdung-fuel, sugarcane, melons, and other goods, were carried from Muttra to Brindâban or the reverse; while between 30 and 40 of wheat and other food-grains were brought to Muttra from the north. The present merchant navigation is therefore extremely small. The whole length of the Agra main canal is navigable; and a special navigation channel, about eight miles long, connects the main canal with the town of Muttra. This navigation branch quits the trunk at Aring, and may some day, perhaps, be continued into the Jumna. Large sums have been spent on rendering the canal navigable. The bridges have been built high, so that boats may pass beneath them; and locks have been constructed at the falls. But it seems more than doubtful if the receipts will ever cover the interest on the outlay; and it seems almost certain that the lately opened cut to Muttra will be very little used. What little traffic exists is through traffic between Dehli and Agra or places beyond; for at both Agra and Dehli ends the canal opens for navigation purposes into the Jumna. In 1877-78 Kosi exported some grain and imported some stone. Muttra imported a little grain, *bhang*,¹ and sugar; and Aring a little grain for re-importation into the native states. The traffic in grain is not a constant one, and depends entirely on the difference of prices at the different marts. But the traffic in stone from Agra is steady and likely to increase. On the canal a few Government boats carry goods at fixed rates. Private boat-owners pay Government a quarterly rent of Rs. 20, and carry goods from Agra to Dehli at the rate of Rs. 6 per hundred maunds. In 1877-78 there plied on the canal 20 Government and 72 private boats.²

Enough has been said to show that it is on shore, and not on water, that we must look for the principal highways. Of these the most important are the railroads. Northwards through the eastern corner of the district of tahsil Sâdabad runs the East Indian line. It has at Mânikipur a station which, lying on the route from Sâdabad to Jalesar, is called Jalesar-roads. From the Mendu or Hâthras-roads station of this line, in Aligarh, branches a light state railway to Muttra city. Opened in 1875, this latter line runs along the older metalled road between the two points just mentioned. It is on the metre-gauge

¹ An intoxicating decoction from the wild hemp plant.

² See preceding vol., p. 432.

and its length is $29\frac{1}{2}$ miles. Its construction cost $10\frac{1}{2}$ lakhs,¹ of which $3\frac{1}{4}$ were contributed by local shareholders.² On the shares Government guarantees interest at the rate of 4 per cent. per annum. It promises, moreover, a division of the surplus earnings, should such at any time be realized. "But it is highly improbable," writes Mr. Growse, "that the shareholders will, for at least a very long time, ever draw more than the minimum of 4 per cent. Nor was any such hope entertained when the project was first started. The principal shareholders, including the Seth, who invested as much as a lách and a half in it, were certainly not attracted by the largeness of the pecuniary profit. Twelve per cent. is the lowest return which Indian capitalists ordinarily receive for their money. The investors were entirely influenced by a highly commendable public spirit, and by a desire to support the local European authorities, who had shown themselves personally interested in the matter. As yet the line labours under very serious disadvantages: from being so very short; from the want of a depôt on the city side of the river at Muttra; and from the necessity of breaking bulk at the little wayside station of Mendu. Consequently, traders who have goods to despatch to Háthras find it cheaper and more expeditious to send them all the way by road rather than to hire carts to take them over the pontoon-bridge and then unlade them at the Muttra station and wait hours, or it may be days, before a truck is available to carry them on. Thus the goods traffic is very small, and it is only the passengers who make the line pay. These are mostly pilgrims, who rather prefer to loiter on the way, and do not object to spending two hours and fifty minutes in travelling a distance of $29\frac{1}{2}$ miles. As the train runs along the side of the road, there are daily opportunities of challenging it to a race; and it must be a very indifferent pony which does not succeed in beating it."

As a goods-carrier this line is chiefly utilized for the import of grain and sugar; and but little for any exports from Muttra itself. It has stations at Mendu, Háthras, and Mursán of Aligarh; and at Barahna, Ráya, and Muttra in tahsil Mahában of this district. From it, at Muttra, has been constructed a continuation to Achhnera of Agra, the distance between and Muttra-Achhnera lines, the two places being 23 miles. This continuation

connects Muttra with the Rájputána state line, which has a station at Achhnera.³ Agra can be reached in less than $3\frac{1}{2}$ hours, and direct communication with Bombay is now secured. But before this line actually joins the terminus of the Háthras-Muttra line several years at least

¹ A lách = Rs. 1,00,000, or, let us say, £8,330.

² Whiteway, *Settlement Report*.

³ Preceding vol., p. 438.

must elapse. Between the two railways is fixed the great gulf of the Jumna. A design has been prepared for a bridge having 12 spans of 98 feet each ; passage for both road and railway traffic ; and two foot-paths. The estimated cost amounts to 3 lákhs, but is as usual likely to be exceeded. A larger expenditure might safely be incurred, as the receipts from tolls on the existing pontoon bridge are above Rs. 45,000 yearly. Cross-sections of the river and a series of borings show that the width of the flood-channel is 1,000 feet, and that good clay foundations underlie, at 33 feet, the sandy bottom. The site is in every way well suited for the purpose, and presents no special engineering difficulties. But it is probable that, before the completion of so large a bridge, the Muttra-Háthras line will, from its Háthras terminus, have extended to Farukhabad ; and from Farukhabad to Cawnpore, the great centre of North Indian commerce. The stations of the Muttra-Achhnera railway are at Muttra, Bhainsa, and Perkham, all in tahsíl Muttra.

In roads the district is rich. From Muttra metalled or macadamized

highways run to Agra, Dehli, Aligarh, Háthras, Brindában, Bhartpur, and Díg (*viâ* Gobardhan). Another

Roads.

metalled road passes through tahsíl Sádabad on its way from Agra to Aligarh, and another quits the capital of that tahsíl for Jalesar. The lines from Ohháta to Shergarh and from Muttra to Sádabad may still be called metalled, though their metal is no longer renewed, and though they must therefore, in a few years, degenerate into ordinary earthen roads. "It is extremely unfortunate," writes Mr. Whiteway, "that these lines should have been given up, and that the road to Aligarh should have been rendered almost useless by the removal of the metal for some distance beyond the border of this district." Mát alone, of all the tahsíls, is unprovided with a metalled highway. The unmetalled communications are numerous. The chief are those from Muttra to Sonkh, Jait to Sahár, Ohháta by way of Sahár to Gobardhan, Shergarh by way of Nohjhíl to Bajna, Nohjhíl by way of Sarír to Mát, Mát to Ráya, and Ráya to Baldeo. There are besides these many unmetalled "village roads" or cross-country tracks which, except where they pass through sandhills or have been cleft by canal-works, may be called excellent. But the mileage in Muttra of the different roads may be seen from the following statement, which divides them into *first class*, or raised, bridged and metalled ; *second class*, or raised and bridged, but not metalled ; and *third class*, neither raised nor metalled, but occasionally bridged. The village roads, neither metalled, bridged, nor raised, are in some districts termed *fourth class*. But as they obtain no repair, and are

not recognized by the Public Works Department, they may be here excluded from consideration :—

FIRST CLASS ROADS.	LENGTH WITHIN DISTRICT.		THIRD CLASS ROADS.	LENGTH WITHIN DISTRICT.	
	Miles.	Furlongs.		Miles.	Furlongs.
Muttra to Brindában ...	5	4	Kosi to Nohjhíl ...	14	0
Branch to Díg-gate police-station ...	2	2	Do. to Sháhpur ...	10	0
Muttra to Dehli ...	30	6	Do. to Punahana ...	6	0
Do. to Díg ...	17	2	Do. to Firozpur ...	7	0
Do. to Bhartpur ...	14	1	Do. to Sahár ...	10	0
Do. to Agra ...	8	5	Shergarh to Kaman ...	20	0
Do. to Jalesar ...	13	1	Chháta to Barsána ...	10	0
Aligarh branch ...	1	3	Brindában to Jait ...	6	0
Agra and Aligarh ...	10	1	Ditto to Khaira ...	20	0
Bhartpur branch ...	0	7	Gobardhan to Brindában ...	16	0
Muttra to Háthras ...	14	4	Ditto to Sonkh ...	7	0
Jalesar road to Jalesar-roads railway station ...	0	5	Muttra to Sakráya ...	10	0
Total ...	119	1	Do. to Kaman ...	30	0
SECOND CLASS ROADS.			Little Kosi, Muresi, and Sahár ...	21	0
Chháta to Shergarh ...	8	1	Aring to Agra ...	11	0
Kosi to ditto ...	11	0	Nohjhíl to Tappal ...	8	0
Jait to ditto ...	13	2	Do. to Khair ...	8	0
Shergarh to Nohjhíl ...	5	0	Ráya to Mát ...	8	0
Jait to Sahár ...	8	0	Mát to Somna ...	11	0
Chháta to Gobardhan ...	15	7	Mahában to Agra ...	24	0
Muttra to Sonkh ...	13	5	Ditto to Khandauli ...	21	0
Do. to Jalesar ...	20	0	Hánsanj to Gokul ...	5	0
Total ...	94	7	Káshi-ghát to Nohjhíl ...	22	0
			Total ...	305	0
			Grand total of all roads ...	519	0

The alignment of the Muttra-Agra and Muttra-Dehli roads almost coincides with that of the ancient highway which, during the rule of the Dehli emperors, connected the capitals of Dehli and Láhor. This fact is proved by the ponderous mile-stones (*kos-minár*) which are found still standing at intervals of about three miles, and nowhere at any great distance from the wayside. Here was the "delectable alley of trees, the most incomparable ever beheld," which the emperor Jahángír enjoys the credit of having planted. That it was truly a fine avenue is attested by the language of the sober Dutch topographer, John de Laet, who, in his *India Vera*, written early during the reign of Sháhjahán (1631), speaks thus :—"The whole of the country between Agra and Láhor is well watered and by far the most fertile part of India. It abounds in all kinds of produce, especially sugar. The highway is bordered on either side by trees which bear a fruit not unlike the mulberry,¹ and," as he adds in

¹ In the original Latin text the word is *morus*, which Mr. Lethbridge, in his English edition, translates "fig." Mr. Growse, from whose work this paragraph has been taken, thinks that "mulberry" is a correcter rendering. The mulberry "is to this day largely used for roadside planting at Láhor, and still more so in the Pesháwar valley and in Kábul and on the Oxus. De Laet says it was only like the mulberry, and not that it was positively the mulberry, on account of the difference of the two varieties of the fruit, the Indian and the European, which is very considerable. In the Kashmir valley both are to be seen."

another place, "form a beautiful avenue." "At intervals of five or six *kos*," he continues, "there are hostels (*sardi*) built either by the king or by some of the nobles. In these travellers can find bed and lodging. When a person has once taken possession he cannot be turned out by any one." But the glory of the road seems to have been of short duration; for Bernier, writing about 30 years later, in 1663, says:—"Between Dehli and Agra, a distance of 50 or 60 leagues, the whole road is cheerless and uninteresting." So late, moreover, as 1825 Bishop Heber, on his way down to Calcutta, was apparently much struck with what he calls "the wildness of the country;" but mentions no avenue, as he certainly would have done had one then existed. Thus it is clear that the more recent administrators of the district, since its incorporation in British territory, are the only persons entitled to the traveller's blessing for the magnificent and almost unbroken canopy of over-arching boughs which now extends for more than 30 miles from the city of Muttra to the border of the Gurgáon district, and forms a sufficient protection from even the glare of an Indian summer's noon.

It should be mentioned, with regard to the extract from de Laet, that his descriptions were not always, perhaps, drawn from actual observation. The quantity of sugar produced is still, even after the opening of the Agra canal, inconsiderable. Some Muhammadan tombs which he places at Akbarpur really lie in the next village, Dotána. The road hostel which he locates at Báđ, an intruding village of Bhartpur, stands some six miles further on, at Jamálpur. And of the large hostels at Kosi and Chhátá he says nothing.

These hostels are fine fort-like buildings, with massive battlemented walls, flanking turrets,¹ and high-arched gateways. They are five in number: one at Jamálpur, that is, at the entrance to the civil station of Muttra; the second at Ázamabad, two miles beyond the city on the Dehli road; another at Chauhá; the fourth at Chhátá, and the fifth at Kosi. The three latter are generally ascribed by local tradition to Sher Sháh, whose reign extended from 1540 to 1545. But it is also said that Itibár Sher Khán,² was the founder of the two at Muttra and Kosi, Ásaf Khán of the one at Chhátá. It is probable that both traditions are based on facts. A glance shows that both the gateways at Chhátá are double buildings, half dating from one period and half from another. The inner front, which is plain and heavy, may be referred to Sher Sháh, while the lighter and more elaborate stone front, looking towards the town, is a later

¹ The term bastion, sometimes applied to such defences, seems incorrect. The true bastion is in this country an European introduction.

² For some account of this ennobled eunuch see Gazr., VI., p. 249, note.

addition. As Āsaf Khān (the "Asaph the Recorder" of the Old Testament) was simply a title of honour, borne by several persons in succession, some doubt arises at first as to the precise individual intended. The presumption, however, is strongly in favour of Abd-ul-majīd, who, after being Humāyūn's finance minister, was, on Akbar's accession, appointed Governor of Delhi. The same post was held later on by Khwāja Itibār Khān, the reputed founder of the Kosi hostel. The general style of architecture is in exact conformity with that of similar buildings known to have been erected in Akbar's reign, such, for example, as the fort at Agra. The Chaumuha sarai¹ is, moreover, always described in the old topographies as at Akbarpur. This latter name is now restricted to a village some three miles distant. But in the sixteenth century local divisions were few and wide; and beyond doubt the foundation of the imperial hostel was the origin of the village name. The separate existence of Chaumuha is known to date from a very recent period, when the name was bestowed in consequence of the discovery of an ancient Jain sculpture, supposed by the ignorant rustics to represent the four-headed (*chaumuha*) god Brahma.

Though these sarais were primarily built mainly from selfish motives on the line of road traversed by the imperial camp, they were at the same time enormous boons to the general public. The highway was then beset with gangs of robbers, with whose vocation the law either dared not, or cared not, to interfere. On one occasion, in the reign of Jahāngīr, we read of a caravan waiting six weeks at Muttra before it was thought strong enough to proceed to Delhi; no smaller force than 500 or 600 men being deemed adequate to encounter the dangers of the road. Now the solitary traveller is so confident of protection that, rather than drive his cart up the steep ascent that conducts to the portals of the fortified enclosure, he prefers to spend the night unguarded on the open plain. Hence it comes that not one of the hostels is now applied to the precise purpose for which it was constructed. Smaller than the rest and much modernized, the Jamālpur rest-house has for many years been known as the Damdama,² and occupied by the police reserves. At Chhāta, one corner of the building is occupied by the school, and another by the offices of the tahsildār and local police, while the rest of the broad area is nearly deserted. At Chaumuha the solid walls have in past years been undermined and carted away piecemeal for building materials; while at Kosi, the principal

¹ Tieffenthaler (see *Gazr.*, V., 182, note) distorts Chaumuha into Tschaoimao. He speaks of its sarai as "*hotellerries belle et commode*." ² The name Damdama or Dum-Dum is common enough in the neighbourhood of British cantonments, and appears to mean a park of artillery.

market-street runs between the two gateways and forms the nucleus of the town.

Still more complete destruction has overtaken the Āzamabad sarkī, which seems to have been the largest, as it certainly was the plainest and most modern of the series. Its erection is locally ascribed to prince Āzam, the son of Aurangzeb; this being the only historical Āzam with whom the people are acquainted. But, as with the other buildings of the same character, its real founder was a local governor, Āzam Khān Mīr Muhammad Bākīr, also called Irādat Khān, who was Military Governor of Muttra from 1642 to 1645. In the latter year he was superseded in office, as his age had rendered him unequal to the task of suppressing the constant outbreaks against the Government; and in 1648 he died. As the new road does not pass immediately under the walls of the hostel, it had ceased to be of any use to travellers. So a few years ago it was to a great extent demolished, while its materials were used in paving the streets of the adjoining city. Though there was little or no architectural embellishment, the foundations were most securely laid, reaching down below the ground as many feet as the superstructure which they supported stood above it. Of this, ocular demonstration was lately afforded when one of the villagers, in digging, came upon what he hoped would prove the entrance to a subterranean treasure chamber. But deeper excavations showed it to be only one of the line of arches forming the foundation of the hostel wall. The original mosque is still standing, but is little used for religious purposes. The village numbers only nine Muhammadans in a population of 343, all of whom live within the old ruinous enclosure.

Until the completion of the railway-viaduct across the Jumna, the district

Bridges, ferries, and other river-crossings. will be able to boast no important bridges. The Jumna

is at present spanned, at Muttra, by a pontoon which is kept open all the year round. The bridges of boats on the Muttra-Julesar road at Gokul, on the Briudāban-Khaira line at Briudāban, and on the Shergarh-Nohjhl line, at Shergarh, are maintained during the eight dry months only. In the rains they are replaced by ferries. Of other ferries across the Jumna the chief are those at Shāhpur, Kharāl, and Majhoi in tahsil Kosi; at Bahta, Siyāra, and Bhāngāon in tahsil Chhāta; and at Sakráya, Pānigāon, Koela, Narhauli, Garāya, Bhadāya and Churmura in tahsil Muttra. The sum yearly credited to provincial funds on account of boat-bridges and ferries is about Rs. 12,335. The Jhirna, the Pathwāha, and the smaller watercourses are all fordable except after heavy rain.

In the following table will be found the distances from the capital to the other principal places of the district. The figures in every case represent mileage by road, and not distance as the crow flies:—

Place.	Distance in miles from Muttra.	Place.	Distance in miles from Muttra.
Aring	9	Mahāban	6½
Baldeo	10	Manjhoi	36
Barahua (railway station) ...	11	Māt	10½
Barsāna	27	Nandgaon	30
Bathen, Great	29	Nohjhāl	28½
Bhainsa (railway station) ...	9	Ol	19
Brindāban	6	Palson	20
Chaumohan	11	Phalen	27
Chhāta	19	Perkham (railway station) ...	16½
Farah	15	Rāl	10½
Gobardhan	13	Rāya	8
Gokul	4	Rasūlpur	14
Jajt	7½	Sādabad	26
Jalesar-roads (railway station) ...	35	Sahār	15½
Kāmar	31	Sāhpāu	33
Khaira	24½	Shergarh	26½
Kosi	25	Sonkh	14
Kursanda	28	Surīr	18

To the general remarks on climate, in the Agra notice,¹ little need here be added. Though Muttra lies some degrees outside the tropics, though its air is in summer slightly cooled by the periodical rains, the heat in spring is excessive. In the beginning of March, Jacquemont found the atmosphere remarkably dry and the warmth so

¹ Gazr., VII., 439-40.

great as to prevent his travelling after nine in the forenoon. As the season advances the temperature becomes as usual oppressive. The burning wind, writes Major Thorn,¹ "after passing over the great sandy desert, imparts to the atmosphere in these regions an intensity of heat scarcely to be conceived, even by those who have been seasoned to the fury of a vertical sun. In every direction where this pestiferous current has any influence, the effects are painful to those who have the misfortune of being exposed to it. But westward of the Jumna the fiery blast is still more distressing, from the want of rivers and lakes to temper its severity, the nearest resemblance to which, perhaps, is the extreme glow of an iron-foundry in the height of summer."

The heat is probably less on the whole than that of Agra.² But the following observations, taken many years ago in the cavalry lines at Muttra, agree very fairly with those nowadays recorded at Agra and Dehli. Later readings are not forthcoming. No register of temperature is kept in the District Jail:—

Month.				1852.	1853.	1854.	Average.
January	...	...	...	...	57.2	63.7	60.4
February	...	...	...	...	69.3	65.7	67.5
March	...	...	...	71.7	77.4	74.2	74.4
April	...	...	...	81.6	84.3	86.5	84.1
May	...	...	...	86.7	90.8	91.1	89.5
June	...	...	...	90.8	95.3	94.0	93.4
July	...	...	...	86.1	86.2	88.2	86.8
August	...	...	...	83.8	90.8	85.0	86.5
September	...	...	...	83.8	89.2	84.9	86.0
October	...	...	...	86.6 79.6	80.6	...	80.1
November	...	...	...	71.7	73.5	70.7	72.0
December	...	...	...	...	65.1	60.4	62.7
Average				...	...	...	78.6

¹ *Memoir of the Marhatta War in India*, 345.

² See preceding vol., p. 43.

The following statement gives the average rainfall for the last fifteen years. In this period there was one year of excessive rainfall (1873-74) and two years of failure (1868-69 and 1877-78):—

Year.	June.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	Total.
1863-64	4.05	15.42	7.53	0.13	0.22	...	...	...	0.22	0.08	0.16	0.7	28.51
1864-65	0.1	5.23	7.1	4.91	...	...	...	0.13	0.23	0.61	0.4	0.87	19.48
1865-66	0.5	1.42	9.07	3.81	...	...	...	0.01	...	...	0.35	0.5	16.66
1866-67	0.9	8.18	10.92	6.95	...	...	...	0.1	...	0.63	0.1	0.22	27.9
1867-68	0.9	12.43	11.63	0.97	0.22	...	0.95	0.61	0.56	0.35	0.08	0.11	28.54
1868-69	1.48	8.83	0.35	1.5	...	...	...	1.15	0.2	1.8	...	...	15.31
1869-70	0.32	7.5	5.62	4.85	1.68	...	...	0.47	...	1.57	0.42	...	22.43
1870-71	5.82	8.75	4.85	1.7	...	...	0.65	0.73	0.82	0.07	0.17	1.97	25.53
1871-72	6.2	9.68	6.08	2.47	...	...	0.95	0.73	0.35	0.1	0.02	0.57	27.15
1872-73	2.87	10.27	9.9	3.12	...	...	0.32	0.18	...	0.35	...	1.32	28.33
1873-74	0.73	20.43	11.95	7.89	0.11	...	0.02	...	...	0.23	0.05	0.61	42.02
1874-75	4.87	10.8	10.17	2.71	...	...	...	0.37	1.3	...	...	0.37	30.59
1875-76	0.27	7.01	6.55	13.03	0.9	...	0.53	...	...	0.41	0.05	0.35	29.1
1876-77	0.38	8.93	2.89	6.13	1.02	...	...	0.28	0.89	0.25	0.5	0.81	21.55
1877-78	0.97	2.45	0.8	0.08	4.55	...	3.91	0.45	0.32	0.23	0.72	1.18	13.66
Average	2.02	9.16	7.02	4.01	0.59	...	0.36	0.4	0.33	0.44	0.2	0.6	25.13

But in such matters even fifteen years are an insufficient basis for the formation of a correct average. Covering, in different months, from 31 to 33 years, Mr. S. A. Hill's figures yield an annual downpour of 26.18 inches. They show for November a yearly average of 0.13; but it will be seen that, during the years abovenoted, no rain fell in that month. Judged by these fifteen years, the rainiest tahsil is Muttra, the driest Mát; and the fall of the cis-Jumna is about two inches greater than that of the trans-Jumna tract. But the annual quantity of the downpour is often of less importance than its occurrence in the right month. On the winter showers (*mahdwath*) of December, January, and February depends to a great extent the outturn of the spring harvest. The rain of March, April, and May is, so far as concerns agriculture, wasted. If in March, as often happens, hail takes the place of rain, the ripening crops are seriously damaged. The great hailstorm of 1841 is still remembered in Kosi.

PART II.

PRODUCTS OF THE DISTRICT: ANIMAL, VEGETABLE AND MINERAL.

THE fauna of the district is the same as that of Agra and the description of it given in the memoir of that district¹ will suffice equally for Muttra. Leopards, wolves, hyænas, wild-boar, and *nilgdi* are found chiefly in the hilly tracts to the west near the Bhartpur frontier.

Deaths by wild animals appear to be rare, thirteen only being reported during the six years 1876-81, of which eleven occurred in 1880 and two in 1881: so that for four years in succession no cases were reported.²

The usual domestic animals of Northern India are represented. The milch-cows of Kosi and the north of Ohlâta are famous for a considerable distance round, the pasturage both in the grass-lands (*rakhyas*) of those parganahs and in the large fallow area of the Noh Jhil being excellent. Sheep and goats are chiefly pastured among the Jumna ravines. Horses are bred to some extent all over the district, but most largely in the Mât tahsil, where some Government stallions are kept.

During the recent settlement an estimate was made of the number of cattle in the district and the result is as follows: 102,523 plough-cattle, 254,628 other cattle, 6,300 sheep and goats, and 15,400 horses.³

The fish of the Jumna and its tributaries have been sufficiently described in former volumes. A very insignificant proportion of the population entirely supports itself by catching them—so small that in 1873 there were reported to be only 141 fishermen altogether in the district, of whom only a few, called Machhûas, were engaged in no other occupation. The supply of fish is said to be deficient in the cold season, but to be equal to the demand in the hot weather and rains, especially just after the latter have ceased. The consumers of fish are reported to be few, the greater part of the Hindu population abstaining from this food, either from its being prohibited to them by their caste rules or in deference to the prejudices of their neighbours. In Brindâban, for example, even the Bengâlis, who are notorious fish-eaters elsewhere, are reported to be so far brought under the sacred influence of the place as to have abandoned fish as an article of diet. On a rough estimate one-fifth only of the population eat fish.⁴

¹ Gaz. VII.
Whiteway's Settlement Report.

² From a statement furnished by the Collector of Muttra.

⁴ Dr. Day's report, page clxxviii.

³ Mr.

The canals have much to answer for as regards the wholesale destruction of fish, which have, however, other enemies than man, the fish-eating crocodile (*Gavialis Gangeticus*) living entirely upon them.

Mr. Growse has given a long list of trees that grow in the district. It

Trees.

cannot be stated which (if any) of these are peculiar to Muttra, but Mr. Whiteway remarks that many of those found on the right bank of the Jumna do not grow on the left. Little more than the native and scientific names need be given here, as ample descriptions are contained in the Manual of Indian Timbers recently published¹ :—

Name in vernacular.	English name.	Botanical name.
Agasti ² ...	...	Sesbania grandiflora.
Akol ³ ...	...	Alangium Lamarckii.
Am ...	Mango ...	Mangifera indica.
Amaltās ...	Indian laburnum ...	Cassia Fistula.
Amīā ⁴ ...	...	Phyllanthus Emblica.
Arni ...	...	Clerodendron phlomoides.
Arna ⁵ ...	...	Ailanthus excelsa.
Asok ...	...	Saraca indica.
Bābirang ...	...	Embellia robusta.
Babū ⁶ ...	Thorny acacia ...	Acacia arabica.
Bahera ...	...	Terminalia belerica.
Bakāyan ...	...	Melia semper-virens.
Bar ...	Banyan ...	Ficus bengalensis.
Barnā ⁷ ...	...	Cratogeomys religiosa.
Bel ⁸ ...	Wood-apple ...	Egle Marmelos.
Ber ⁹ ...	...	Zizyphus Jujuba.
Champā ...	...	Micheleia Champaka.
Chhonkar ...	...	Prosopis spicigera.
Dhāk ¹⁰ ...	...	Butea frondosa.
Dho ¹¹ ...	...	Anogeissus latifolia.
Farās ...	...	Tamarix indica.
Gondi ...	...	Cordia angustifolia.
Gorak imli ¹² ...	Baobab or monkey-bread, ...	Adansonia digitata.
Gūlar ...	Wild-fig ...	Ficus glomerata.
Hingot ...	...	Balanites Roxburghii.
Hins ...	...	Caparis separia.
Imli ...	Tamarind ...	Tamarindus indica.
Indrajau ...	...	Wrightia tinctoria.
Jāman ...	Wild plum... ...	Eugenia Jambhana.
Jhau ...	...	Tamarix dioica.
Kachnār ...	...	Bauhinia variegata.
Kadamb ...	...	Nauclea Columba.
Kait ...	Elephant-tree ...	Stephogyne parvifolia.
Kutisiya ...	...	Peronia Elephantum.
	...	Celtis australis.

¹ The scientific names in this list have been kindly furnished by Mr. J. T. Duthie, Superintendent, Botanical Gardens, Saláranpur.

² From a Hindi word of that name; also called *Larrea* (according to Gamble).

³ Sans. *akola*, also called *thali*.

⁴ Sans. *amīā*.

⁵ Sans. *arna*.

⁶ Also *Arka*.

⁷ Sans. *barnā*.

⁸ Sans. *beli*.

⁹ Sans. *ber*.

¹⁰ Sans. *dhaka*.

¹¹ Sans. *dho*.

¹² Gamble, p. 42. Mr. Growse says it has no native name.

Name in vernacular.	English name.	Botanical name.
Kattikāri ... ..	...	Xylocarpus longifolium.
Karil ¹ ... ..	...	Capparis aphylla.
Khajur ²	Wild date palm ...	Phoenix sylvestris.
Khirni ³ ... ..	...	Mimusops indica.
Khandār ... ..	...	Salvadora persica.
Labana and lasora ...	...	{ Cordia Myxa.
Mahua ⁴ ... ..	...	" Latifolia.
Mulsāri or maulsiri ...	...	Bassia latifolia.
Nausath ... ..	...	Mimusops Elengi.
Nim ⁵ ... ..	...	Erythrina indica.
Nim chambell ... ..	...	Melia indica.
Pāpri ... ..	...	Millingtonia hortensis.
Pasendu ... ..	...	Ulmus integrifolia.
Pān ⁶ ... ..	...	Diospyros montana.
Pālakhan ... ..	...	Salvadora oleoides.
Pipal ... ..	...	Ficus cordifolia.
Remja ... ..	...	Ficus religiosa.
Ritha	Soap-berry ...	Acacia leucophylla.
Sahajna	Horse-radish ...	Sapindus detergens.
Sahora ... ..	...	Moringa pterygosperma.
Shah-tut	Mulberry ...	Streblus asper.
Semal	Cotton tree ...	Morus indica.
Siris ⁷ ... ..	...	Bombax malabaricum.
		{ Albizzia Lebbeck.
		" Odoratissima.

The *Agasti* is a small soft-wooded tree with large handsome flowers: the tender leaves, pods and flowers are eaten as a vegetable, and the tree is grown as a support for the betel pepper vine. The *Akol* is a small tree with yellow flowers; the wood is used for oil-mills, &c., and the bark in native medicine; the fruit is eaten. The Indian laburnum (*Amaltis*) is a very handsome tree, having long pendulous racemes of bright yellow flowers: the wood is very durable, the pulp of the pods is a strong purgative, the bark is used in dyeing and tanning and the gum as an astringent. The fruit of the *Amla* is the emblic myrobolam, used as a medicine, for dyeing, tanning and for food. The *Arni* is a tall white-flowered shrub and the *Arua* a fine forest tree. The bark of the latter is aromatic and is used as a febrifuge and tonic. Good furniture-wood is obtained from the *Gondi*. The *Hins* is a very strong thorny creeper; and the *Jhau* a dwarf variety of the *Parás*, which springs up after the rains on *khadar* land and forms a dense junglo.

Timber woods are with rare exceptions absent and all wood found in the district (writes Mr. Growse) may be classed as fuel. The area under groves is very insignificant, being 4,120 acres only, or 5 per cent. of the whole area. Grass for thatching—both *gandar* and *sarpata*—is plentiful.

¹ Sans. *karira*. ² Sans. *khajura*. ³ Sans. *kshirini*, the milky. ⁴ Sans. *madhuka*. ⁵ Sans. *nimba*.
⁶ Also *dungar*. ⁷ Sans. *sirisha*.

					1286 fasli.	1287 fasli.	1288 fasli.
AREAS (KHARIF) CROPS.					Acres.	Acres.	Acres.
Jute	...	...	{ Irrigated	...	2,906	831	2,323
			{ Dry	...	1,07,765	1,10,324	1,16,476
Bajra	...	...	{ Irrigated	...	522	220	637
			{ Dry	...	57,748	49,860	22,967
Arhar	...	...	{ Irrigated	...	6	42	48
			{ Dry	...	40	51	9
Jute and arhar	...	...	{ Irrigated	...	1,114	324	8,550
			{ Dry	...	47,771	61,676	72,570
Bajra and arhar	...	...	{ Irrigated	...	14	13	244
			{ Dry	...	2,732	11,901	12,112
Maize	...	...	{ Irrigated	...	1,525	118	8,720
			{ Dry	...	2,354	7,841	1,783
Rice	...	...	{ Irrigated	...	8	6	2
			{ Dry	...	10	3	0
Urd	...	...	{ Irrigated	...	50	4	6
			{ Dry	...	749	1,167	1,511
Meth	...	...	{ Irrigated	...	221	46	76
			{ Dry	...	11,515	9,807	14,264
Cotton	...	...	{ Irrigated	...	1,424	3,635	5,234
			{ Dry	...	32,502	66,528	49,869
Cotton and arhar	...	...	{ Irrigated	...	2,130	405	13,143
			{ Dry	...	32,764	46,829	47,163
Sugarcane	...	...	{ Irrigated	...	2,632	1,552	629
			{ Dry	...	103	53	31
Indigo	...	...	{ Irrigated	...	1,178	1,552	2,616
			{ Dry	...	612	548	248
Jute fodder	...	...	{ Irrigated	...	110	32	160
			{ Dry	...	5,415	1,864	3,647
Gudri-kurti	...	...	{ Irrigated	...	18	23	167
			{ Dry	...	2,523	6,702	8,453
Garden crops food	...	...	{ Irrigated	...	...	383	520
			{ Dry	...	...	169	127
Ditto non-food	...	...	{ Irrigated	...	204	...	72
			{ Dry	...	110	...	31
Miscellaneous food	...	...	{ Irrigated	...	569	176	514
			{ Dry	...	1,210	2,333	1,577
Ditto non-food	...	...	{ Irrigated	...	166	77	505
			{ Dry	...	3,744	876	753
Total of Kharif crops					21,327	10,454	43,303
					3,76,267	4,46,711	3,78,227

An inspection of the foregoing figures will show how widely different was the extent of cultivation of some crops in different years: but it must be borne in mind that 1286 fasli¹ was a year of general scarcity approaching actual famine in these provinces. The early cessation of the autumnal rains of 1878 and total failure of the winter rains caused a much smaller area to be sown with spring crops than in normal years. Omitting the extra crops, the entire area sown with autumn crops in 1286 fasli (1878-79) was 396,594 acres, in 1287 fasli (1879-80) 457,165, and

¹ 1878-79 A.D.

in 1288 *fasli* (1880-81) 422,530. The spring crops occupied in 1286 *fasli* 255,502 acres, in 1287 *fasli* 285,516, and in 1288 *fasli* 310,411. In the settlement report the crop-area for the whole district is not given for any one year, but for each tract as it stood at the time of preparation of the rough records. This work occupied from 1872 to 1876, so that the areas of very different periods are shown. The entire area under crops for both harvests is given as 737,529 or, excluding *dofasli* (double-cropped) area 707,185 acres. In the three years of which details have been just given the total area was 652,096, 742,781 and 732,941 acres respectively, so that only the first of these, or 1878-79, was below the settlement officer's estimate.

As would naturally be expected, the cultivation of extra crops, melons, vegetables and miscellaneous, was greater in 1878-79 than in the two following years, *viz.*, 2,070 acres in the first as compared with 1,186 and 1,157 in 1879-80 and 1880-81 respectively.

The cultivation of cotton has, according to Mr. Whiteway, decreased greatly during the thirty years of the settlement just over, the chief cause being the decreased demand for home-made cloth, its place being taken by cloth of English manufacture. The area devoted to cotton in 1862 was estimated at 79,412 acres. The area in 1880-81 was of cotton and *arhar*, which generally is sown with it, 119,178 acres, so that an improvement had taken place since 1862.

The following table shows the distribution of the chief crops in the different parganahs according to the measurements made during settlement operations in each of them:—

	Sahpau.	Sādabād.	Mahāban.	Muttra.	Chhāta.	Kosl.	Māt.	Noh Jhāl.
Cotton	26	25	14	10	16	17	12	10
Jūd	22	22	26	41	36	28	25	20
Bājra	3	4	7	6	7	5	3	4
Wheat	19	17	12	5	4	7	17	15
Barley	7	8	8	5	3	3	6	6
Bejhar	11	11	19	6	12	22	22	26
Gram	2	2	2	20	17	11	2	3
Total percentage of area under chief crops to total crop area.	90	89	88	93	95	93	87	84.

These statistics bring into prominence, (1) the preponderance of *kharrif* over *rabi*; (2) the prevalence of *jūd* and the small area under *bājra*; (3) the

large area under cotton ; (4) the small area under wheat ; (5) the absence of rice ; (6) the scarcity of cane ; (7) the large area of gram ; and (8) the small area under vegetables.

From these facts further inferences may be drawn. The excess of *kharif* over *rabi* cultivation, the small area under wheat and large area under gram, all indicate that the water is far from the surface and irrigation difficult. The extensive growth of *judr* and the small area under *bājra* point to the natural richness of the soil, and this is further shown by the large area under cotton. The absence of rice is accounted for by the dryness of the climate and the dearth of *jills* or lakes. From the scarcity of cane it may be concluded that it is rare to find the water perfectly sweet, while the small area under vegetables is significant of the scarcity of Káchhis, Kunjrás and other classes that are usually occupied in raising garden-crops.

Comparing the two opposite sides of the river, *khurti*, which is grown for fodder, is commoner in the eastern than in the western tahsils ; and in other respects the peculiarities of the whole district are intensified on the right bank of the river. The *kharif* area rises from 52 per cent. in the eastern to 60 per cent. in the western tracts, and garden-produce falls from over 1 per cent. to only .5 per cent. of

irrigation, Kosi 'would be equal to the eastern parganahs,' for the processes of ploughing and tending the crops are performed with the same care. It is in the Muttra and Ohhāta parganahs that the baneful effects of such careless husbandry as the Ahwāsīs, Gūjars, and Gaurua Thākurs deign to give to the soil become strikingly apparent, for (in Mr. Whiteway's words) "they just scrape the ground and, throwing in the seeds of *jadr* or gram, leave the germinating of it to Providence and the rain."

No doubt the differences in the modes of cultivation depend to a certain

Causes of the differences
in modes of cultivation.

extent on physical cause, and prominent among these

must be placed the varying abundance and quality

of water in the two tracts. Allusion to the want of water in the west-Jumna

Trans-Jumna and cis-
Jumna tracts contrasted.

tract has been already made in Part I. In the

trans-Jumna¹ parganahs the water is not only nearer

the surface, but it is more uniformly good. On the right bank of the Jumna

the wells are frequently brackish and, in parts of the Muttra and Ohhāta

tahsils, the only water fit to drink is that retained after the rains in ponds and

tanks. Many kinds of saline water are, however, very beneficial to the crops

in ordinary years, though in seasons of drought they are absolutely hurtful.

It is not surprising that well-irrigation is much more common in the trans-

Jumna than in the cis-Jumna tract. In the former 77 per cent. of the whole

cultivated area is commanded by wells, while in the latter only 30 per cent.

is thus protected. To this scarcity of water the sparse population of the cis-

Jumna tract is in a great measure to be ascribed. There was little induce-

ment to the colonist to settle there as long as land was to be had on the other

bank. The cis-Jumna parganahs have also been peculiarly liable to famine.

The soil in years of drought becomes caked and unworkable, while the gene-

really salt character of the wells prevents their being used independently of rain.

These influences have had their natural effect in keeping down the popu-

lation, and a reference to Part III. of this memoir will show that the density

in the eastern tahsils is considerably greater than in the western. The expo-

sure of western Muttra to war and inroads from Rājputāna and Mewāt has

further contributed to bring about the unequal character for cultivation which

now attaches to the tracts on opposite sides of the river. From a variety of

causes, then, it has come about that in the western parganahs cane and indigo

are, or were till quite recently, almost unknown, while garden crops are rare and

the area under wheat is very small. The cultivator depends for his food on the

¹ These terms trans-Jumna and cis-Jumna are used from the standpoint of Muttra city, which lies on the right bank of the Jumna; if applied with reference to the Gangetic Doāb and the Provinces generally the appellations would have to be reversed.

coarse autumnal staples of *juar* and other millets, and for his rent on the cotton plant. In the trans-Jumna tract also cotton is the favourite rent-paying crop; but, in addition to it, the Jât agriculturist has his well-filled fields of wheat, barley and maize, and his garden crops of tobacco, potatoes and other vegetables.

These marked distinctions between the two halves of the district will probably in time be to a great extent obliterated. The prospect of differences being obliterated. effect of the Agra Canal, which passes through the heart of the cis-Jumna tract, in a line roughly midway between the river and the Bhartpur hills, is already visible.¹ Mr. Whiteway notices the industrial spirit which it inspires among even the most indolent castes, and the revolution it is causing in traditional agriculture. The result of canal-irrigation in the district of Muzaffarnagar was very similar, as it is there acknowledged to have been more potent in weaning the Gûjar and Ahîr from their predatory pursuits than the Penal Code or the police. Next to water, the want of the cis-Jumna parganahs is population; it has actually decreased in the last decade. But as this must be ascribed mainly to drought, and as the best protective against drought is irrigation, the influence of the canal on population will not be unimportant.

Irrigation is obtained almost entirely from canals or wells; that from other sources, such as tanks and rivers, being so small as not to be worth notice. In fact in many villages there is a strong religious feeling against using well-water for irrigation, as it is kept for the cattle in the dry months. The total area irrigated from all sources aggregated 609 square miles,² or 58 per cent. of the total cultivated area. With a light porous soil and a dry climate, irrigation is essential to all the higher classes of crops. The trans-Jumna tract indeed is amply supplied with wells. Thus in parganah Sâhpau almost every rood of cultivated land is actually irrigated, or capable of being irrigated, by some existing well. In this respect, it is on a level with parganah Hâthras of the adjoining district of Ali-garh, and may rank with it as one of the most highly-developed tracts in the province. Sufficient perhaps has been said of canals as irrigating agents in Part I.³

In discussing the water-level something was also said about wells, but the subject was not exhausted. They are of four classes—(1) Wells. masonry, (2) lined with a cylinder of wood (*garwârî*), (3) with a basket-work of twigs (*ajhâr*), or (4) with no lining at all (*nanga*).

¹ Vide Part I., page 23 *supra*. ² So the figures in the rent-rate reports add up, but the Board in its review points out that, according to the number of wells and average area irrigated per well given at page 16 of the settlement report, the total should be 546·6 square miles. ³ *Ante*, page 15.

Each of these classes of wells may be further subdivided into *kili*, or those worked with two pairs of bullocks per rope (*láo*), and *nagaur*,¹ those worked with one. From the great depth to the water the former class is most common. The third sub-division of wells—namely, *dhenkli* or wells worked by hand—are not used except in the Jumna valley.

The following statement shows the number of wells of each class :—

	<i>Pakha.</i>	<i>Garwári.</i>	<i>Ajhar.</i>	<i>Nanga.</i>	<i>Total.</i>
Cis-Jumna	... 2,735	1,902	5,607	217	10,461
Trans-Jumna	... 2,264	8,388	19,623	414	30,689
Total	... 4,999	10,290	25,230	631	41,150

Thus about one-eighth are masonry, one-fourth have wooden cylinders, and most of the rest are lined with twigs to prevent the sub-soil from slipping. Partly from the greater number of masonry wells, and partly from the fewer number of wells altogether, the area irrigated per well varies from 9·4 acres on the right side of the river to 8·2 acres on the left. As a rule, a masonry well commands a larger surface than any other kind, as it is driven down further until it meets the *sot* or spring and a stratum strong enough to bear the weight of the shaft. The supply of water thus obtained is naturally much more certain than the percolation supply at a higher level, and several pairs of bullocks can be worked at the same well. *Kachcha* wells cannot be sunk so deeply, as every foot of depth adds to the danger of their falling in. It is not unheard-of for the men sinking the well to be killed, as sometimes, when the under-stratum is of shifting sand and the upper-stratum of firm soil has been pierced, the sand seems to come boiling up into the well and the sinkers are caught before they can escape.

The appliances for supporting a *kachcha* well vary according to the strata of soil passed through. Where these strata are unstable, resort is had to a cylinder of wood, the slabs being fastened together with strong wooden pegs; this wood is taken from the *farás* or other quick-growing trees near the well, and a well so made lasts sometimes 50 years. The cost is about Re. 1-12-0 to Rs. 2 per foot of wood-work, and about Rs. 10 for incidental expenses. Where the substrata are more stable it is sufficient to use a lining of twigs made into rolls; the twigs used are usually those of the *farás* tree. These wells cost about Rs. 10 and as a rule last for one year only.

During the thirty years between the penultimate and the last settlements the number of masonry wells had fallen from 6,601 to 5,528² and 1,000 of this decrease occurred during the first ten years of that period. For this the

¹ Mr. Whiteway spells it thus, but the word is probably *nigora*, lit., without 'feet.'

² Including Jalesar.

drought in 1837-38 was partly responsible, but the fact seems to be that the people have decided that masonry wells do not pay in places where any other kind of well is possible. A *garicdri* well rarely costs more than Rs. 50 and seldom lasts less than ten years, while only an inferior class of masonry well can be built for Rs. 200. The interest on this Rs. 200 for the ten years at the ordinary rate would be Rs. 240; so that if, instead of burying the principal in one well, the capitalist laid it out at interest, he could keep in constant use three or four wells, each as good as his one masonry one, and still have the principal to fall back on at the end. Further, the large class of small cultivators who have no fixity of tenure cannot afford to make any permanent improvements in the lands from which they may be any day ejected. Living from hand to mouth, it is far easier for them to borrow a small sum which can be repaid from the proceeds of one harvest than the larger sum required for a better class of well; and thus, even though they only last one year, *ajhâr* wells, costing Rs. 10 to make, are generally dug in preference to *garicdri* ones, which, lasting ten times as long, cost only five times as much.

No calculations (similar to those made by Mr. Benson for Agra) are given in

Outturn of various crops
and cost of their cultivation.

the settlement report regarding the outturn of the various crops and the average cost of their cultivation. The most reliable statistics on this subject are probably those given by Mr. Wright in his memorandum and summarized in the Cawnpore article of this series.¹

The increase of cultivation proceeded at varying rates in the different par-

Increase in cultivation.

ganahs during the currency of the settlement the period of which recently terminated. Thus Muttra showed a rise of 27 per cent. in cultivated over total area; Chihâta 22; Kosi 20; Mât 13; Sâdabad 12; and Sâhpau only 5. In Mahâban, the remaining parganah, partial statistics only are available, showing a rise of 11 per cent. for the first 10 years and of 6 per cent. for the last twenty of the period of the penultimate settlement.

The cultivated area, excluding that of the Farah villages, was 556,812 acres in 1846-47; in 1852 it had risen by 51,586 acres, *viz.*, to 608,398. Mr. Whiteway's returns show a further extension of 40,895 acres, bringing up the cultivated area to 649,293 acres. The whole uncultivated assessable area, including groves, comes to scarcely 2 per cent.² of the total area in the Muttra, and to 10.2 per cent. in the Farah villages. The largest proportion of culturable waste and fallow, 16.3 per cent., is found in parganah Noh Jhâl, owing to the large *khâdar* area and the presence of the large lagoon from which the parganah is named.

¹ Gaz., VI., 28.

² More exactly 1.9 per cent.

But while the greater part of this increase in all the parganahs took place during the first third of the expired settlement, the irrigation statistics show a diametrically opposite result; the greatest increase in irrigation having taken place during the last 20 years. The explanation probably is that when first the increased burdens of the settlement under Regulation IX. of 1833 were imposed, they were met by breaking up the waste land; but, as the margin of waste got smaller, it is reasonable to assume that only the worst lands, which would hardly pay the cost of cultivation, were left untilled. Population still pressed harder on the land, and recourse was had to some other means of increasing its productiveness. Cultivation became closer and more careful, and irrigation extended. The changes proportionally in the irrigated area from the penultimate settlement to that now current have been—

<i>Parganah.</i>	<i>Proportional change in irrigated-area from penultimate settlement to revision of records.</i>		<i>Proportional rise in irrigated area from penultimate to current settlement.</i>
	<i>Increase per cent.</i>	<i>Decrease per cent.</i>	<i>Percentage.</i>
Sáhpau ...	...	11	20
Sádabad ...	10	...	36
Muttra ...	8	...	108
Chháta ...	54	...	141
Kosi ...	...	...	53
Mát ...	14	...	71

In Mahában the rise from revision to the current settlement has been 64 per cent. Sáhpau is the only parganah in which the area recorded at last settlement as irrigated was more than that recorded at the revision of records; Sáhpau also is the only parganah in which Mr. Tyler's assessments were very heavy. "It would seem, therefore," writes Mr. Whiteway, "as if in that parganah some error in the statistics then prepared had been committed."

From the increase of cultivation we come naturally to consider the main causes which have retarded that increase, and foremost among them must be placed droughts and the famines that have ensued from them. The history of famines in an agricultural district like Muttra is of great value in an enquiry into the effects of British rule. We have imposed peace where formerly war raged; we dispense justice with at least impartiality, which can be said of no previous rulers; we have brought the blessings of easy modes of transit within the reach of all, and by our railways, canals and metalled roads an impetus to commerce, unequalled in the past, has been given; but if the condition of the people themselves has not been improved, if population has declined and the increased wealth of the

few has been purchased at the cost of the great mass of the people who are the actual tillers of the soil, our satisfaction at the spread of western civilization may well be tempered with anxious reflection upon the causes of these untoward phenomena.

The startling fact, brought to light by the recent census, of a decrease in the population between February, 1872 and February, 1881—just nine years—amounting to no less than 110,770 in a population (according to the census of 1872) of 782,460,¹ or at the rate of more than 16 per cent. pre-supposes some potent and more than usually baneful influences at work. Chief among these was famine. The severity with which the last famine visited the Agra Division can scarcely be better illustrated than by simply reading off the population of each district at each of the two periods. With the exception of Mainpuri and Etāwah there was decrease in all, but nowhere is the decrease so marked as in Muttra.

Mr. Whiteway tells us that the district, especially in the west, is peculiarly sensitive to famine. Not only is it at a disadvantage from the great depth from the surface of the soil to the water; from the soil character of that water during times of drought, when it becomes more and more impregnated with salt as the subsoil dries; and from the nature of the soil itself, which, rich though it be in fair seasons, cakes rapidly when moisture is withdrawn; but another danger constantly menaces the district at such times, for its position on the edge of the Rājputāna States causes, on the slightest appearance of distress, a rapid influx of famine-stricken paupers.

Only a rapid survey can here be taken of the famines that have left their mark upon the district since the introduction of British rule. We shall find that they have been six in number, including the recent one of 1877-78.

Famine of 1813-14. The first of these was in 1813-14, before the administration had as yet settled down, and while the

people, not recovered from the disorders that preceded our conquest, were harassed by the severity of our earlier settlements. The rains of 1812 failed; there was no autumn harvest, and the spring crop was indifferent; while the rains of 1813 were late and partial. Mr. Boddam, writing fifteen years later, says of this famine: "During these years almost half the landed property in *zila* Agra changed owners, whole villages were sold for the trifling sum of Rs. 80 or Rs. 100, and numerous cultivators deserted the soil which would no longer repay the expense and trouble of cultivation." The distress was

¹ The population of the district as it stood in 1881 is compared at both periods and not the gross population of the Muttra district with its extended limits in 1872.

consequently very sharp and severe. Sahár is specially mentioned as having suffered terribly. The quoted prices of grain in 1813 are—

				Average.	Lowest price.
				Sers.	Sers.
Wheat	...	...	...	22	17
Barley	...	...	...	31½	19
Gram	...	...	...	23	17½

The rise in prices generally was from 35 to 40 per cent.¹ over the average of preceding and succeeding years, while the prices that then caused this great distress were but little over those now paid in average years. "Many died from hunger," says Mr. Hamilton, "and others were glad to sell their women and children for a few rupees and even for a single meal." The distress is said even to have exceeded that of the great famine of 1783.

In 1825-26 Muttra suffered along with the rest of the districts then known as the Western Provinces from a severe drought.² A decrease of 208,349 maunds on the out-turn of the previous year (1,297,094 maunds) was reported by the Collector (Mr. Boddam). The two parganahs which suffered most were Mahában and Jalesar.

But the famine of 1837-38, which arose from the entire failure of the rains in 1837, following on a succession of bad seasons from 1832, was a more terrible calamity still, and forms an epoch in native chronology as the *chauránawe* (1894 *sambat*). Though not the most grievously affected, Muttra suffered heavily, and Mr. Hamilton, the Commissioner, reported that in Sonai, Ráya, Mát and Mahában, the crops were scanty, the soil dry, and cultivation found only where there were *pakka* wells. The produce on the irrigated land even did not equal the average, and the difficulty of feeding cattle and the labour of irrigation were very great. Around Muttra itself the garden produce came up to ordinary years, but the wells were fast turning so brackish as to destroy, rather than refresh, vegetation. The parganahs Aring and Gobardhan were both ploughed and sown, but the seed did not vegetate. The cattle in Aring were suffered to pull at the thatch, the people declaring it useless to drive them forth to seek for pasture. People of all classes suffered from the drought and the high price of grain. The famine may be considered to have ended with the rains of 1838. Of the prices of grain

¹ But Mr. Bennett remarks that the rise was nearer 200 per cent.; that, as far as he can make out, the average price of all kinds of grain at the beginning of the present century was about 60 sers, and that a rise of 35 to 40 per cent. would hardly produce a bad famine. ² It may be noted that the Famine Commission omits this from its list of droughts in the N.-W. P., confining it to Madras and Bombay. *Famine Commission Report, 1880, Part I., p. 28.*

during this time we have few details, but we are told that grain, without specifying the kind, went up to 12 sers the rupee, the harvest price of wheat reaching 14 sers. This famine cannot be compared with that of 1812, for not only did the prices run far higher, but the distress was far greater. Land-revenue to the amount of more than three lakhs of rupees was remitted in 1838.

Muttra suffered less severely in 1860-61 than its neighbours across the Jumna; but even here the estimate made by the Collector of the number of deaths from starvation is 2,500, and this notwithstanding a liberal expenditure on relief operations, which, however, were possibly commenced too late. Nearly Rs. 30,000 was thus spent, including Rs. 5,000 distributed among indigent agriculturists to purchase seed and cattle.

Extreme famine was not felt in this district in 1868-69, but there was great distress. The most remarkable points in the narrative of events of those years were the entire failure of fodder and grain in the district and the miserable outturn of the *kharrif*. The long drought which set in with August destroyed all hopes of good crops, except on irrigated lands. Grass entirely disappeared, and cattle were driven away to Rohilkhand, or sold to butchers at ruinously low prices. Slight rain fell in February, 1869, but with the hot months the lack of fodder increased to so alarming an extent that peasants were driven to stripping trees of their leaves. In December, 1868, wheat was at 12 sers, and gram and *judr* at 13. Slackness in the export towards Rájputáná, in January, caused wheat to rise to 13½ and 14½ sers, gram to 15 sers, and *juár* to 13 sers. The relief, however, was temporary, and it was not until late in the autumn of 1869 that coarse grains were procurable at 20 sers for the rupee. Relief was sanctioned by government in December, when distress was perceptible in the western parganahs of Kosi, Chhátá, and Huzúr Tahsil. Seventy-one miles of road-making on seven district roads in Kosi, Chhátá, Mát, and Jalesar were undertaken, and a new market-place (*ganj*) was constructed at Jalesár. Poor-houses were opened at Kosi, Chhátá, Muttra city, Brindálan, and Mát; they were closed in October. The daily average of the numbers relieved was 187.

It is stated in the official narrative of the last famine of 1877-78 that Muttra and Agra suffered far more and for a longer period than the other districts in the division. The rainfall from June to September, 1877, was only 4·30 inches as against 18·28 inches in the preceding year, and even that was much below the average. This deficiency in the rains affected the main food-crops which are mostly

raised on irrigated lands, the irrigated tracts being chiefly reserved for the more lucrative cultivation of sugar, indigo and cotton. Thus, as a consequence of short sowings, prices rose from early in July; and in September, 1877, actual distress began to be manifested. The autumn crops on which the poorer people depended had failed absolutely and common grains were not purchasable.

It will save time and space if we quote Mr. Growse's summary of the history of this famine, instead of giving the very lengthy account of it found in the official report:—

"The distress in the villages was naturally greatest among the agricultural labourers, who were thrown out of all employ by the cessation of work in the fields, while even in the towns the petty handicraftsmen were unable to purchase sufficient food for their daily subsistence on account of the high prices that prevailed in the bazar. In addition to its normal population the city was further thronged by crowds of refugees from the adjoining Native States, more especially Bhartpur, who were attracted by the fame of the many charitable institutions that exist both in the city itself and at Brindaban. No relief works on the part of Government were started till October, when they were commenced in different places all over the district

under the supervision of the resident Engineer. They consisted chiefly of the ordinary repairs and improvements to the roads which are annually carried out after the cessation of the rains. The expense incurred under this head was Rs. 17,762, the average daily attendance being 5,519. On the 25th of November in the same year (1877) it was found necessary to open a poor-house in the city for the relief of those who were too feeble to work. Here the daily average attendance was 690; but on the 30th July, 1878, the number of inmates amounted to 2,139, and this was unquestionably the time when the distress was at its highest. The maximum attendance at the relief works, however, was not reached till a little later, viz., the 19th of August, when it was 20,483, but it would seem to have been artificially increased by the unnecessarily high rates which the Government was then paying.

"The *rabi* crops, sown after the fall of rain in October, 1877, had been further benefited by unusually heavy winter rains, and it was hoped that there would be a magnificent outturn. In the end, however, it proved to be even below the average, great damage having been done by the high winds which blew in February. Thus, though the spring harvest of 1878 gave some relief, it was but slight, and necessarily it could not affect at all the prices of the common autumn grains. The long-continued privation had also had its effect upon the people, both physically and mentally, and they were less able to struggle against their misfortunes. The rains of 1878 were moreover very slight and partial, and so long delayed that they had scarcely set in by the end of July; and thus it was, as already stated, that this month was the time when the famine was at its climax. In August and September matters steadily improved and henceforth continued to do so; but the poorhouse was not closed till the end of June, 1879. The total number of inmates had then been 393,824, who had been relieved at a total cost of Rs. 41,070, of which sum Rs. 2,990 had been raised by private subscriptions and Rs. 3,500 was a grant from the Municipality.

"Besides the repairs of the roads the other relief works undertaken and their cost were:—
Other relief works and their cost. the excavation of the Jait tank, Rs. 6,767; the deepening of the Balbhadra tank, Rs. 5,770; the levelling of the Jamsipur mound adjoining the Magistrate's Court-house, which will be mentioned hereafter as the site of a large

Buddhist monastery, Rs. 7,238. On the 11th of May, 1878, the earthwork of the Muttra and Achhnera Railway was taken in hand and continued till the beginning of September, during which time it gave employment to 713,315 persons, at an expenditure of Rs. 56,639. An extension of the Mát branch of the Ganges Canal was also commenced on the 30th July, and employed 579,351 persons, at a cost of Rs. 43,142, till its close on the 16th of October. There should also be added Rs. 6,379, which was spent by the Municipality, through the District Engineer, in levelling some broken ground opposite the city police station. The total cost on all these relief works thus amounted to Rs. 1,80,630. No remission of revenue was granted by the Government, but advances for the purchase of bullocks and seed were distributed to the extent of Rs. 35,000."

The mortality in Muttra in 1878 was higher than in any other district in these provinces, the rate reaching the enormous proportion of 71·56 per mille; and how much this exceeded the rate elsewhere may be gathered from the figures for the districts that come next in order, viz., the Taráí 58·16, Bijnor 57·18, Agra 57·15, Sháhjahánpur 55·4. The total mortality of the provinces in 1878 gave a rate of 35·62, the mean ratio per thousand for the previous five years having been 20·05 for the North-West Provinces and Oudh, and for Muttra district 21·78.

But if the death-rate was high in 1878 it was still higher in 1879, when it reached 72·23 per thousand, although Muttra was no longer at the head of the list. It is impossible not to connect the excessive deaths of the latter year with the scarcity of the former, for, although the principal actual cause of death in 1879 was a fever-epidemic of unusual virulence, attacking rich and poor alike, it found its easiest victims among the latter, weakened as they were by previous privation.

The total number of deaths in the district from July, 1877 to December, 1879 amounted to 112,825, and they are shown for each month in the following statement :—

Deaths registered in Muttra from July, 1877, to December, 1879.

	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	Total.
1877-78 ...	973	1,126	932	1,337	1,579	1,978	1,869	1,725	2,018	2,511	2,189	3,672	21,904
1878-79 ...	2,562	2,970	6,579	11,664	9,881	5,068	2,792	1,594	1,229	1,578	2,017	1,771	49,205
1879 ...	1,367	6,603	10,609	12,380	6,309	4,448	...	...	...	...	...	...	41,716

The deaths directly attributable to famine come within the period ending in June, 1879, and are included in the total of 71,109 deaths recorded from July,

1877 to June, 1879. The remaining period, as already stated, was one of great mortality, but only indirectly (if at all) attributable to the previous famine. Of course it is not meant that all the deaths registered between July, 1877 and June, 1879 were caused by famine, but it is impossible to state what proportion of them exactly came under that denomination. As the *Famine Commissioners* remark—¹

“Great epidemics almost invariably follow upon seasons of severe scarcity. To some extent famine and pestilence are the twin-offspring of the drought, which, while it withers the crops, exposes the diminished water-supply to pollution. The diagnosis of disease recorded in the statistics is very incorrect; and deaths arising from starvation are no doubt often attributed to other causes, such as cholera, small-pox, dysentery, and fever. Death from famine is not so simple and easily recognizable a matter as was formerly supposed. The effect of chronic starvation is to induce functional morbid changes in the intestinal organs, which, when they have gone to a certain length, are incurable, and manifest themselves in symptoms that often imitate those of other diseases.”

Writing of the scarcity of the years 1877-78, Mr. Whiteway remarks:—
“It was anomalous, inasmuch as it was brought about by the failure partially of

Famine of 1877-78 and one year's monsoon, and previously it had always been considered that no one year's failure could be enough to cause a scarcity. This change arose from a combination of circumstances which will probably be never met with again. The previous failure of the harvests in other provinces had caused a heavy drain on the stocks in the North-West, and the low prices of the spring of 1877, combined with the war in Europe, had vastly stimulated export. In the end such export must benefit the cultivators and landlords, but in this particular case it had not been in action long enough to reach them; they had to dispose of their produce at the very low rates obtaining at the harvest, and the grain-dealers alone benefited by the stimulated export; so that when the failure of crops came here, there were no stocks to fall back on, and what would in a few years have materially improved the position of the bulk of the people acted to their detriment.”

The general lessons to be derived from the experience of the last and preceding famines have been stated by the Famine Commission in their report, the first part of which was published in 1880. Among other conclusions the Commission arrived at may be mentioned the following one regarding the con-

Effects of scarcity on prices. nection between prices and scarcity:—“There is much difficulty in estimating in any precise way the effect of a short harvest on prices, but it may be said approximately and generally that, in time of very great scarcity, prices of food-grain rise to three times their ordinary amount, so that whereas in ordinary years the price of the

¹ Famine Commission Report of 1880, I., 80.

food-grain of the mass of the people may be from 20 to 30 sers per rupee (or 20 to 30lb. per shilling, equivalent to 25 to 17 shillings per quarter of 500lb.), in time of great scarcity it will rise 8 or 10 sers per rupee (or 8 to 10lb. per shilling, which is 63 to 50 shillings per quarter), and even higher. Much caution, however, is requisite in regarding prices as a sound standard by which to estimate the severity of famine or distress, not only in making comparisons between periods and places considerably separated, but in all circumstances. It is a well-ascertained fact that prices which would be regarded as indicating famine in one part of the country are quite compatible with undisturbed prosperity in another."¹

The floods that of recent years have inundated the tracts in the north of Mát which adjoin the old bed of the Jumna were mentioned in Part I.² They are apparently the result of a tendency on the part of the river to return to an old course. Of the other causes that retard cultivation blights and weeds are the commonest. Of the latter the *baisuri* is the most prevalent. Among the trans-Jumna tahsils it is found in the east of Mahában, in that tract of country which extends from Ráya on the north to the Bisáwar³ border on the south-east, averaging 10 miles in length and 5 in breadth. The extent of the area affected is about 23,000 acres, or 18 per cent. of the whole cultivated area. In Sádabad 14,452 acres of the cultivated area were returned during the settlement-measurements as similarly affected, and Mr. Whiteway thinks this prevalence is connected with the brackish character of the water. In parganah Mát 3,830 acres, and in Noh 233 acres, were reported affected. In the latter it is found in any quantity only in one ill-fated village, Makhdúmpur: in Mát it affects the villages in the south from Dunetia to Nasithi, and thence in a line from Harnaul to Baikunthpur. In Muttra tahsil it is found in only some 150 acres, and, as it is not mentioned in the description of them given in the settlement report, it may be presumed not to exist in the other tahsils in appreciable quantities.

A kind of sandstone, fit for building purposes, is procurable at two places on the western border of the district, viz., Barsána and Nandgaon, where low rocky hills crop out above the surface of the ground. Except on the spot and in the immediate neighbourhood, this stone is not much used, and presumably it is owing to the small demand that it is not properly quarried. The usual method is the rough and ready one of fracturing the large blocks, that are lying about on the surface, into handy and portable pieces. The canal officers used it for bridges and

¹ Famine Commission Report, I., 37.

² *Supra*, p. 18 *et seq.*

³ A village in Sádabad.

other works on the Agra Canal. The same kind of stone is to be found at Gobardhan, where the hill range is about seven miles from end to end; but the Hindus consider every chip sacred and will not allow any of it to be utilized. The cost of the stone depends very much on the distance from the quarry to the site of work. It can be quarried at Rs. 1-8 to Rs. 2 per 100 cubic feet. The carriage costs from twelve ānas to one rupee per 100 cubic feet per mile.

Sandstone from the Rūpbās and other quarries in the Bhartpur territory is largely used in Muttra, Brindāban, Gobardhan, and Gokul. This stone costs at an average Rs. 45 per 100 maunds. Mr. Growse quotes the following description of the two qualities of sandstone :—“The red sandstone, which is geologically an older formation than the new red sandstone of Europe, is specially adapted for flooring and roofing, for it loses none of its strength when saturated with water, and frequently has such a perfectly parallel lamination that by the insertion of a series of wedges it can be split up into flags of any thickness that may be required. The white variety, on the other hand, loses nearly half its strength when saturated, and is therefore not so good for roofing; but for all other building purposes it is far superior to the red, both on account of its less perfect lamination and also its greater fineness of texture and uniformity of colour. It is possible to quarry blocks of the most enormous size; thus at Rūpbās, near the place from which they were cut, are two monoliths of the speckled red stone; one a circular column $34\frac{1}{2}$ feet long with a diameter of 3 feet 3 inches at one end and 2 feet 8 inches at the other, the second a parallelopiped $42\frac{1}{2}$ feet long by about 5 feet 6 inches \times 4 feet; the weight of the larger being nearly 60 tons. Also in the temple of Baladeva, about two miles from Rūpbās, are three prostrate figures said to have been dug out of the ground, measuring in length respectively 28, 22, and 21 feet, and each formed out of a single stone, which in the larger is 7 or 8 feet wide.” (*Mallet's Vindhyan Series, Geological Survey, Vol. 7*).

Bricks can be made in every part of the district, the clay needing but little working and tempering to ensure its burning of a good colour. The native *paṛāwa* is the usual description of kiln (clamp) in which the bricks are burnt with cowdung or other refuse as fuel, wood being seldom or never used. The *paṛāwagirs* or brick-burners are well up to their business. Bricks of small dimensions, $5 \times 3 \times 1$ inch and $7 \times 4 \times 1\frac{1}{2}$ inch, are most generally made, the expenditure of fuel not being so great as is necessary for larger bricks, and successful burning being more certain. Hence it is only when bricks are wanted for government purposes that large bricks are made. The small country bricks, *lakhauri* or *Muthura-bāsi*, sell at from

Rs. 55 to Rs. 120 per lakh delivered; the government sizes at from Rs. 550 to Rs. 750 per lakh at the kiln. Carriage to site costs from 12 *ánas* to Re. 1 per 1,000 per mile.

Wood is scarce all over the district; there is no timber wood, and all we have may be classed as fuel, which, when dry and cut up into billets, sells at $2\frac{1}{2}$ to 3 maunds per rupee. Wood is not used as a fuel for burning lime, bricks, &c., being too expensive and difficult to procure in large quantities. *Upla* or cow-dung, mixed with litter and such refuse, hand-moulded into pats and sun-dried, is chiefly used for burning bricks and lime.

There is no real limestone found in the district. *Kankar*, which is a variety of limestone, is generally used for making lime, and forms an excellent hard-setting strong lime, if carefully managed. *Kankar* when required for lime, after being excavated, is spread out for exposure to air and sun for two or three days preparatory to cleaning and freeing it from clay, sand, &c., which is done by beating the *kankar* with short sticks and screening it, by throwing it on frames woven with coarse fibre, called *munj*, *lúd* or *sutli*; very often a native *chúrpai* or bed is used. The *modus operandi* with the kiln is as follows:—A bed is laid, about one foot deep, of dried cow-dung (*upla*), in a circular form, the dimensions depending on the quantity of lime to be prepared; a thick bamboo or straight limb of a tree is set upright in the centre to form the firing hole; the packing of the kiln then goes on in alternate layers of *kankar* and *upla*, each layer decreasing in diameter till it takes the form of a cone. The kiln is then well covered in with broken-up *upla* and *upla*-dust beaten lightly. The kiln is now ready for firing, the bamboo is withdrawn and fire thrown in, so that the burning begins from the bottom and middle right up the cone. While the kiln is burning, care must be taken to prevent the flame from bursting out. In opening the kiln, the lime must be removed layer by layer, otherwise the *upla*-ash gets mixed with the burnt *kankar*. The *upla* should be laid in the kiln unbroken; when this is attended to the ash can be removed easily, as it keeps its form of a pat and does not crumble. The cost of the lime depends on the distance the *kankar* and fuel have to be brought, and varies from Rs. 6 to Rs. 11 per 100 cubic feet.

Kankar is abundant all over the district, but there is a great difference in the quality of what is got east and west of the *Jumna*. That from the east is larger, harder, a good ashy-blue in colour, and in thicker strata. That found westward is small,

soft, somewhat disintegrated and light in color ; the quarries, too, are poor. Block kankar is found in the Sādabad tahsil and in Jalesar (now in the Erāh district), and is well adapted for masonry. The best kankar is found round Jalesar. The cost of kankar averages Rs. 3½ per 100 cubic feet stacked on the road, and the cost of metalling a mile 12 feet wide and 6 inches deep is about Rs. 1,350.

Tiles of a small size are made, but there is nothing peculiar in their manufacture in this district. The lock-tiles are made on a *chāk* or wheel in a cylindrical form and cut in two with wires. The pan-tiles are rolled out in tempered clay and cut to size according to wooden templates, the sides being turned up against templates of less width. Neither the lock nor pan-tiles are neatly made. Tiles are not much used, chiefly because they are so liable to be damaged by the monkeys. The poorer dwellings are roofed with thatch, and the larger houses have flat roofs, for the most part plastered. The cost of tiles is from Rs. 5 the thousand.

Grass for thatching is plentiful, both *gandar* and *sarpat*; cost, Rs. 3 to Rs. 10 per 1,000 bundles (*pūla*), according to the size of the bundle and length of the grass.¹

¹ From an article communicated by Mr. C. G. Hind, District Engineer, with additions by Mr. Growse (see Memoir of Mathura, 2nd edition, p. 498).

PART III.

INHABITANTS, INSTITUTIONS AND HISTORY.

From the interchanges of villages between this and neighbouring districts, it is impossible to obtain from the reports of the earlier censuses a perfectly accurate statement of the population of the district as it now stands for former periods, nor can more than rough estimates be given, of little value for purposes of comparison. In the year 1803, when its area was first included in British territory, part of it was administered from Agra and part from Sa'dábád. This arrangement continued till 1832, when the city of Muttra was recognized as the most fitting centre of local government, and, superseding the village of Sa'dábád, gave its name to a new district comprising eight tahsils, viz., Aríng, Sahár and Kosi on the right bank of the Jumna; and on the left, Mát, Noh-Jhil, Mahában, Sa'dábád and Jalesar.¹ The first census was taken in 1848, but was an estimate rather than a census; it gave a total population of 701,688; there were 648,692 Hindús and 52,996 Muhammadans; the total density of the population was 435 to the square mile. These figures include Jalesar. If that tahsíl be excluded the total population becomes 583,705 (543,688 Hindus).

The next general census took place in 1853 and showed for the district a total population of 862,909, and, omitting Jalesar, of 718,512 (663,489 Hindus). The increase was owing in part (to the extent of 9,200) to the inclusion of the cantonment population, which had been excluded from the previous enumeration. The density was 535. The total area, estimated at 1,607·1 square miles in 1848, had increased to 1,613·4 square miles in 1853², but this increase is merely nominal, the former estimate having been proved incorrect, being based almost entirely on the rough native measurement, and not on the professional survey.³ The total population had in six years apparently increased by 161,221. The number of villages and townships was, in 1853, 992, of which 210 had between 1,000 and

¹ In 1874, pargana Jalesar, with a population of 157,775 and an area of 286 square miles, was transferred to Agra district; in compensation, 84 out of the 133 villages constituting the pargana of Farah were, in 1879, detached from Agra and added on to the Muttra tahsíl. As the area and population of these 84 villages are not given in the census reports, the statistics collected at the censuses of 1848, 1853 and 1865 do not accurately apply to the district of Muttra as at present constituted. In the forms, however, published by the Deputy Superintendent of Census for 1881, there is one giving the population for 1872 of the district as it now stands.

² Of this Mr. Whiteway states that 1,061 square miles represented the cultivated area within the district, excluding Jalesar, and the density of the population to that cultivated area would therefore be 677 per square mile. ³ The density by the 1848 census has consequently been calculated on the area found correct in 1853.

5,000 inhabitants, 7 between 5,000 and 10,000, 3 between 10,000 and 50,000, and 1 more than 50,000. The population of Muttra amounted to 65,749; of Brindában to 25,230; of Jalesar¹ to 15,613; of Kosi to 12,625; Mahában to 7,623; of Gobardhan to 7,058; of Chháta to 6,931; of Kursanda² to 6,804; of Shergarh to 5,655; of Rámgarh³ to 5,613; and of Bisáwar⁴ to 5,249.

From 1853 there was no census till the general one of January 10th, 1865. During this period the district suffered severely from epidemics of cholera and small-pox in 1856 and 1858, the mutiny of 1857, with the depopulation of several Gújar villages, and, finally, the great famine of 1861; the population was, therefore, found to have decreased about 7 per cent. Hindus had suffered more severely than Muhammadans. This, the third census, gave a total for the district as it then stood of 803,369, or a decrease of 59,540. Excluding Jalesar the total native population was 668,187 (613,187 Hindus). There were, besides, 598 Europeans and 69 Eurasians. The population to the square mile was returned at 498. There were 1,027 villages and townships, and of these 996 were recorded as inhabited, 791 having less than 1,000 inhabitants, and 197 between 1,000 and 5,000. The 8 towns with over 5,000 inhabitants were Muttra (51,540), Brindában (21,500), Jalesar (13,521), Kosi (12,410), Mahában (6,933), Kursanda (6,487), Chháta (6,060), and the Sadr Bazár and Dam-damá (5,903).

We now come to the statistics collected at the census of 1872. The total for the district as it then stood (887,355) showed an increase of 83,986 over the total by the 1865 census. The area was returned at 1,611 square miles, the townships and villages numbered 972, and the inhabited houses 188,975. Of the former 743 had less than 1,000 inhabitants, 218 between 1,000 and 5,000, and 11 more than 5,000. The population of Muttra amounted to 59,281; of Brindában to 20,350; of Jalesar to 15,694; of Kosi to 12,770; of Kursanda to 7,145; of Mahában to 6,930; of Chháta to 6,720; of Shergarh to 5,305; of Surír to 5,279; and of Bisáwar to 5,221.

Before, however, we can draw comparisons between the returns of 1872 and 1881, it will be necessary to state the totals for the district as it stood in the latter year. Omitting the population of Jalesar parganah and adding that of the 84 villages which in 1878 were transferred from Agra, we must take the following figures for the purposes of comparison: total population 782,460, of whom 422,549 were males and 359,911 females. Further than this we

¹ Now in Etah district. ^{2, 3} and ⁴ These towns appear with these large populations owing to the inclusion of the population of surrounding hamlets.

cannot go, as the statements for religion, caste, occupation, &c., have not been corrected for the altered dimensions of the district.

It remains to notice the statistics collected at the census of 1881. The totals by religion are shown for each tahsil as follows:—

Tahsil.	Hindus.		Muhammadans.		Jains.		Christians.		Others.		Grand total.		Density per square mile.
	Total.	Females.	Total.	Females.	Total.	Females.	Total.	Females.	Total.	Females.	Total.	Females.	
Kosi ...	86,278	26,767	8,093	4,062	924	462	1	...	...	...	65,293	31,291	423.1
Chhata ..	76,987	36,031	7,605	3,581	6	1	...	...	...	...	81,597	39,613	330.9
Muttra ...	1,96 99	91,533	22,905	10,571	331	170	328	106	44	12	2,20,397	1,02,402	549.8
Mât ...	89,546	41,609	6 100	2,859	...	...	...	...	...	...	95,446	44,468	428.2
Mahāban ..	1,10,029	49,605	6,787	3,180	2	2	10	5	1	...	1,16,829	52,792	489.2
Sādulat ...	82,285	36,969	6,698	3,034	330	151	...	...	...	...	82,217	40,157	494.8
Total ..	6,11,626	2,82,514	58,088	27,297	1,593	789	339	111	45	12	6,71,690	3,10,723	462.3

The area had decreased to 1,452.7 square miles owing to the transfers already mentioned. The population, 671,690, was distributed amongst 7 towns and 848 villages, the houses in the former numbering 15,783 and in the latter 70,166. The males (360,967) exceeded the females (310,723) by 50,244, or 16.1 per cent. The density per square mile was 462.3; the proportion of towns and villages per square mile less than one (.58), and of houses 59.1. In the towns 8 persons, and in the villages 6.5 persons, on an average were found in each house. But the most remarkable circumstance in the results of the recent census is the decrease in population already alluded to in connection with the history of the famine. In the nine years between 1872 and 1881 the total population had decreased 110,770, the decrease in the males being 61,582 and in the females 49,188. The total decrease represents a falling off of 14.1 per cent.¹

Following the order of the census statements, we find² the persons returned as Christians belonged to the following races:—

Christians by race.

British-born subjects 193 (42 females); other Europeans 69 (32 females); Eurasians 19 (9 females); and natives 57 (28 females). The relative proportion of the sexes of the main religious divisions of the

Relative proportion of the sexes of the main religious divisions.

population as returned by the census were as follows:—ratio of males to total population, .5374; of females, .4626; of Hindus, .9106; of Muhammadans, .0865; of Jains, .0024; and of Christians, .0005: ratio of Hindu males to total Hindu population, .5381; of Muhammadan males to total Muhammadan population, .5301; of Jain males

¹ By a clerical error this was stated at page 49 (*supra*) as "more than 16 per cent." ² Census form III.A.

to total Jain population, 5050; and of Christian males to total Christian population, 6716. Of single persons there were 154,096 males and 80,190

Civil condition of the females; of married 169,002 males and 169,849 population.

females; and of widowed 37,869 males and 60,684 females. The total minor population (under 15 years of age) was 228,844

Conjugal condition and (101,738 females) or 34.07 per cent., and the following ages of the population.

table will show at a glance the ages of the two principal classes of the population, with the number of single, married and widowed at each of the ages given:—

	HINDUS.						MUHAMMADANS.					
	Single.		Married.		Widowed.		Single.		Married.		Widowed.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
Up to 9 years ...	66,807	66,508	724	2,594	94	90	6,874	6,240	64	245	8	15
10 to 14 „ ...	35,869	13,032	8,258	18,653	801	777	3,713	1,901	505	1,378	45	31
15 to 19 „ ...	13,977	963	13,712	21,594	1,573	1,335	1,651	243	865	1,956	100	71
20 to 24 „ ...	8,663	216	21,435	27,343	3,090	2,495	942	94	1,837	2,668	317	162
25 to 29 „ ...	5,591	170	25,587	25,634	3,903	3,442	498	47	2,411	2,382	275	225
30 to 39 „ ...	4,703	200	38,165	32,460	6,607	9,339	311	64	3,659	3,047	411	651
40 to 49 „ ...	2,121	116	25,621	17,985	6,979	13,502	116	43	2,494	1,757	414	1,013
50 to 59 „ ...	1,091	37	14,125	6,782	6,370	13,189	75	21	1,520	697	497	1,033
60 and upwards ...	580	32	6,457	1,958	5,940	12,064	40	15	838	227	483	1,072
Total ...	139,362	71,274	154,383	155,013	35,300	56,227	14,208	8,663	14,190	14,350	3,393	4,273

Of Christians none are returned as married under 15 years, but there was one widower under that age. Among the Jains 7 (5 females) under 10 and 75 (46 females) between 10 and 14 are returned as married.

Of the total population, 118,794 (77,920 females), or 17.6 per cent., are

Distribution by birth-place.

returned as born outside the limits of the district. Of the total population, 643,352 (310,275 females)

Distribution according to education.

or 95.7 per cent., are returned as unable to read, and write and not under instruction; 23,135 (368 females),

or 3.4 per cent., are shown as able to read and write; and 5,123 (80 females), or .77 per cent., as under instruction. Of those able to read and write 21,538 (287 females) and of those under instruction 4,695 (52 females) were Hindus. The Muhammadans who come under these categories were 1,033 (18 females) and 373 (5 females) respectively. Of the Christians 230 (57 females)

are returned as literate and 42 (20 females) as under instruction; and of the Jains 333 (6 females) were literate and 92 (3 females) under instruction.

The census returns exhibit the number of persons of unsound mind by age and sex for all religions represented in the districts,—the religions of course being those to which by common repute these unfortunates are supposed to belong or the religions of their parents. The total of all religions was 31 (9 females), or .004 per cent.,¹ the largest number, 13 (4 females), being of the ages 30 to 40 years. None in this category are returned as of ages "over 60." All thus afflicted were Hindus, no members of other religions being returned as of unsound mind. The total number of blind persons is returned as 1,807 (936 females), or .26 per cent.² Of these about one-third or 532 (313 females) were "over 60;" 307 (171

Number of the blind. females) between 50 and 60; 258 (156 females) between 40 and 50; 205 (97 females) between 30 and 40; 222 (83 females) between 20 and 30; 76 (26 females) between 15 and 20; 93 (29 females) between 10 and 15; 94 (52 females) between 5 and 10; and 20 (9 females) under 5 years. Of the total number 1,656 (859 females) were Hindus, 147 (74 females) Muhammadans, and 4 (3 females) Jains. Of deaf mutes there were 205 (59 females), or .03 per cent.,³ the largest number, 47 (9 females), appearing among persons between 20 and 30 years, but it is pretty evenly distributed over all ages. Of these 194 (54 females) were Hindus, 10 (5 females) Muhammadans, and 1 (male) Jain. The last infirmity of which note

Deaf mutes. was taken at the recent census was that of leprosy. There were 90 (14 females) afflicted with this disease. The percentage to the total population is .01, so that one in every ten thousand of the population was on the average a leper. 12 (4 females) are returned as over 60 years of age, and out of the total number 88 (14 females) were over 20 years. Of the total number 81 (12 females) were Hindus and 9 (2 females) Muhammadans.

Lepers. Before proceeding to enumerate the various castes of Hindus found in this essentially Hindu district, a short account of the origin of castes may not be out of place. This will serve not only for the district of which we are treating but for the entire series, and some repetition will be avoided by giving it here once for all. Dr. Zimmer, in his "Life in Ancient India," has published an interesting exposition of the latest views of German ethnologists on the subject.⁴ He holds that the Vedic

¹ i.e., 4 in every 100,000. ² i.e., 26 in every 10,000 of the total population. ³ i.e., 3 in every 10,000. ⁴ The following paragraphs have been condensed from an article by Dr. Muir, Ind. Antiquary, IX, 52-57.

people were unacquainted with caste during the period of their development, when the Áryas dwelt principally in East Kábulistán and in the land of the Seven Rivers, and when only single tribes had advanced towards the Jumna and Ganges. This, he argues, must have been the case from the fact that the Áryan tribes which had continued to occupy the early settlements were at the time of the rise of the Indian epic poetry regarded as half-barbarians by the Brahmanized dwellers in Madhyadesa. The Panchavinsa Brahmana, which Weber would regard as the oldest of those works, when describing the march of these tribes to the Sarasvati, says of them that "they do not observe the Brahmanical rules; not being Brahmanically consecrated, they speak the language of the consecrated." The rise of caste must be sought in the modification gradually undergone by the Áryan Indian. "The tribes in the north-west of the Panjáb begin to advance further into Hindustán. To effect this and overcome the foes by whom they are opposed, they have to combine into larger. One of the kings, the most distinguished and powerful, is entrusted with the chief command, and thus gains yet more in consideration. The opposing tribes are overcome, and forced to aid in the expedition; and no doubt their chiefs lose their independence. Through severe conflicts with the aborigines, the extensive country between the Himalayan and Vindhya mountains is gained: large tracts on the banks of the Jumna and Ganges are occupied: those of the aborigines who do not fled to the hills embrace the religion of their conquerors, and remain in their villages as tolerated, though often oppressed, members of the State. The victors are scattered over the conquered territory, and so their fighting men cannot be readily collected as they would be in the small principalities in the Panjáb. Plundering inroads of the dispossessed aborigines, who had retired to a distance, revolts of population which had but apparently been subjected, and attacks of other Áryan tribes, compelled the sovereign prince (*Samrāj*) to

Kshatrias.

have always a band of warriors around him." The small tribal chiefs, who had formerly had each his own followers, gradually sank, with their numerous families and dependants, into the position of a martial nobility surrounding the sovereign prince. These constituted the Kshatria order. They began more and more to regard arms as their occupation, to devote themselves exclusively to a martial life, and to transmit it as an inheritance to their descendants.

The rest of the people—the Vís—were no longer required to assist in military service, and devoted themselves entirely to agriculture, the rearing of cattle, and peaceable traffic.

Vaisyas.

Thus arose the second or Vaisya class.

But it was not to be the lot of the warrior class and of the ruler to reap the entire harvest: the best part of it was taken from them by others. The families of the bards had lived at the courts of the petty tribal princes and had been held in high honor as the celebrators of their exploits. But this action in another direction was yet more important and influenced profoundly the entire national development. With their poetical endowments they lived in the service of religion: they laid before the gods the desires of the princes and wealthy men; they lauded in well-composed hymns the might and glory of the deities, and thanked them for the blessings which they had bestowed. In return for this service they obtained rich gifts. They then acquired the reputation of being more highly qualified for the worship of the gods and for the celebration of the sacrifice; they began to boast of being the objects of the special favor of the gods. Towards the end of the Vedic period, properly so called, it had already become the custom for the prince no longer to offer the sacrifices which were necessary for the State and tribe, but to cause them to be celebrated by bards so gifted. The person entrusted with this function was called *purohita*. We find in him the oldest form of the Indian priesthood. But the functions of the *purohita* were not at first confined to the bards: kings' sons could perform them: and the office was not at once hereditary in any family. All the objects, however, at which the priestly bards were aiming towards the close of the Vedic period were amply attained by them in the succeeding period of conflict, fermentation and confusion. If these priestly leaders had hitherto been honored and rewarded by the tribal princes as trusted counsellors and helpers in religious matters, their estimation among the people in virtue of their actual or arrogated higher qualifications was not less, especially if they were the heads of numerous families. The personal relations of individuals to the gods declined the more, the oftener these bards intervened as mediators; the forms of worship became more manifold, and the results of sacrifices were made to depend more upon their right celebration than upon the intention of the sacrificer. The ancient hymns, which had often visibly secured the favor of the gods, were reverentially preserved and grew in popular estimation. By these priestly families worship was established on a new basis in the conquered districts of Hindustán. But they sought also to make the civil institutions entirely dependent on themselves. They mainly succeeded in this by making their order dependent on birth, and thus the close priestly class—known through all succeeding generations as the sacred Brahman caste—was formed. It is true that the ruler and the martial nobility struggled long against these priestly claims, but the

Brahmans.

Brahmans gradually succeeded in conquering their resistance and in obtaining the recognition of their four prerogatives,—reverence (*archá*), gifts (*dána*), immunity from oppression (*ajyeyatá*), and the inviolability of their persons (*avadyatá*). The further transformations of social and religious life according to their ideals now advanced irresistibly. In order to rear a further barrier between the different branches of the Aryan people, it was only necessary to make the order of warriors dependent upon birth, and the common free-men appertaining to the Vís naturally adopted the same proceeding.

To these three classes was added the subjected indigenous population, which had become somewhat assimilated to the Aryas in religion and customs: and they formed the fourth or Sudra caste. The term Sudra was unknown to the early Vedic era and succeeded the names Dasyu (enemy) and Dása (slave) to describe the aboriginal races.

But although Vaisya and Sudra are used in Manu's Code and are convenient terms to denote the middle and lower orders of society, it is almost certain that the conventional fourfold division never existed with any clearness of definition, and that Vaisyas and Sudras were never distinct bodies in the state. The subject has been so ably discussed by Mr. Growse in his memoir that it would be superfluous to reproduce here the array of facts on which he relies for his conclusions. It is sufficient to note that researches into Vedic and Huránic literature confirm the theory—which a study of the modern condition of caste suggests—that, from the earliest period of which we have any record, the formation of subordinate castes has been in operation, as it is at the present day. But nowhere except in Manu's Code, which is of comparatively recent date, do we find more than two well-defined primary orders, the Brahman and Kshatria. Beneath these we have a confused mass of subordinate classes, whose distinctive features have doubtless been engendered rather by similarity of occupation than by community of origin, between whose sub-divisions, indeed, there exists no closer blood relationship than between any one of these sub-divisions and a Brahman or Rájput family.

In historical times the Brahmanical order has maintained a rigid exclusiveness. The conversion of a Kshatria into a Brahman has rarely occurred, and it is perhaps unnecessary to add that no member of any other class, who might desire entrance into the Brahman order, would ordinarily receive recognition either now or in past times.¹ With Kshatrias matters have been somewhat different. Thus Mr. Growse writes:—²

¹ It is said, however, that Brahmans are still made in the hills, where caste is to be found in its most primitive form.

² Mathura Memoir, pp. 414-415.

"Theoretically, the essence of the Kshatria is as incapable of transfer or acquisition, except by natural descent, as that of the Brahman, but the practice of the two classes has always been very different. The strength of a community that lays claim to any esoteric knowledge lies in its exclusiveness; but a military body thrives by extension, and to secure its own efficiency must be lax in restriction. It may be observed as a singular fact that all the very lowest castes in the country, if interrogated as to their origin, will say that they are in some way or another Thákurs: and this is illustrated by a passage in Manu, where he mentions several outcast tribes as Kshatrias by descent. Whence we may infer that at all times there has been a great freedom of intercourse between that class and others. Indeed, if we are to accept the legend of Parasurám as in any sense expressing an historical event, the whole Thákur race has been repeatedly extirpated and as often re-formed out of alien elements. Nor is this at variance with modern usage, for no Hindu rises to the rank of rāja, whatever his original descent, without acquiring a kind of Thákur character, which in most instances is unhesitatingly claimed by, and conceded to, his descendants, in the third or fourth generation, after alliances with older families have given some colour to the pretension. And the illegitimate sons of Thákurs, who by the code of Manu would be Ugras—their mothers being Musalmánis or low caste Hindu women—are, as is notorious, generally accepted, either themselves or in the person of their immediate descendants, as genuine Thákurs. Again, many of the higher Thákur classes acknowledge the impurity of their birth in the popular tradition of their origin. Thus the Chandels (i.e., the moon-born) profess to be derived from the daughter of a Benares Brahman who had an intrigue with the moon-god; and Gahlots (the cave-born) from a rāni of Mewār, who took refuge with some mountaineers on the Málýa range.

"From all this it follows that, whatever the dignity and antiquity of some particular Thákur families, the Thákur caste is a heterogeneous body, which, like the miscellaneous communities of lower pretensions which we have already discussed, is held together more by similarity of circumstances than unity of origin."

The modern origin of many so-called castes, such as darzis, malláhs, mimárs, mochis, sangtaráshes, bohras, is evident from the names adopted, and the process of formation can be easily traced by comparing the stages of development in different localities. Thus at Saháranpur the kunjras or costermongers have thrown out a distinct caste of mewafaroshes or fruit-sellers: in Muttra, the stone-masons have not yet combined into a sangtarásh class as their fellow-craftsmen have done in Aligarh, Hamírpur, Kumaun and perhaps in other places.¹

Distributing the Hindu population into four conventional classes, we find by the last census that there were 118,249 Brahmans (55,656 females); 55,121 Rájputs 24,142 females); 39,726 Banias (18,343 females); and 398,529 persons belonging to the "other castes" (184,373 females). Of the last an alphabetical list of some important castes is also given, and these will be shown a few pages later on.

No sub-divisions of Brahmans are given in the census returns of 1881, and in the report of the 1872 census the following is the very imperfect attempt at a classification:—

Brahmans.

¹ *Ibid.*, p. 416.

Population in 1872.			Population in 1872.		
1. Bhāt	...	1	9. Maithila	...	2
2. Drāvira	...	2	10. Parasar	...	25
3. Gaur	...	21,151	11. Sārasvat	...	8,071
4. Gujarāṭī	...	483	12. Sanādh	...	1,393
5. Gautam	...	585	13. Sarvaria	...	9
6. Golāpūrab	...	1,270	14. Tilang	...	44
7. Kanaujia	...	497	15. Utkala	...	2
8. Karnātak	...	5	16. Unspecified	...	115,226
			Total	...	148,762

From this it appears that 115,226 were described simply as Brahmans and only in the case of 33,536, or a little more than a fourth, were sub-classes given. The materials, therefore, for an exhaustive account of Brahman sub-divisions in this district are wanting.

Nor can we be sure that the apparent falling off of 30,513 is real, for the district in 1872 included, as already explained, a much larger area than in 1881.¹ With regard to the undoubted decrease in the population generally, it would be interesting to ascertain the proportion of decrease in each caste, but neither for this have we any available materials.

There must be many sub-classes of Brahmans in the district besides those given in the above statement, but it will be noticed that each of the five great tribes, called Gaur—which by tradition colonized Hindustān—is represented, Kanaujia, Sārasvat, Gaur, Maithila and Utkala. The two last (according to the list) had, it is true, but two members and the Kanaujias appear with an abnormally low number, but doubtless many were returned merely as Brahmans, while two of the Kanaujia sub-classes—Sanādh and Sarvarias—are shown separately. Again, Gautams are a sub-class of the Kanaujias proper. Drāvira, Karnātak and Tilang are names of three of the five great southern or Drāvira tribes, the Mahārāshtra and Gurjar being the others. The Parasar of the census may be the Pārāsharia tribe settled in Kāthiāwār and Jodhpur, which takes its name from the *rishi* Pārāsahara. Golāpūrab is the name of an inferior sub-tribe of Sanādh. Gujarāṭī Brahmans, as their name implies, came from Gujarāt and (according to Sherring) belong to the Gurjar tribe.²

Of all or most of these sub-divisions sufficient description has been given in previous volumes, but there are two sub-classes not included in the census list—Chaubes and Ahirāsīs³—of which some account may be given. The

¹ In the Settlement Report the number of Brahmans is stated as 131,636; this was of course according to the census of 1872, but whether this total included the villages transferred from Agra in 1878 is not stated. Jalesar is apparently not included. ² For a classification of Brahmans in the census of 1865 see Supplementary Glossary (Beames' edition), I. 151. This, though doubtless very faulty, represents almost the only attempt made at a classification, by distribution among districts, of Brahman sub-divisions. ³ Jhwāsī in the 1865 census report.

former are placed by Sir H. M. Elliot among the 16 sub-classes of Kanaujias proper. Mr. Growse estimated their number in Muttra to be 6,000, and mentions their still-continuing fame as wrestlers, although their former name for learning and other virtues can hardly be said to have survived. On the contrary, they are described as a "low and ignorant horde of rapacious mendicants" practising under the profession of pilgrim-hunter or local guide. Their custom of marrying their daughters in the city and not to outsiders has passed into a proverb:—

"Mathura girls and Gokul cows

Will never move while fate allows.¹"

In consequence of this custom, disparity of age is little regarded and contracts of marriage are often made on behalf of children and grand-children not yet born. A colony of Mathuria Chaubes migrated many years ago to Mainpuri, and there, it is said, have found the way to wealth and a better reputation than the parent-stock retains.

Of the Ahivásis, who are found also at Háthras and in Mewát, Mr. Growse remarks that he doubts their claim to rank as Brahmans. Their sub-divisions are numerous, being by one account 72, of which the principal are Dighia and Bajrávat. The account given of them by the writer just mentioned is as follows²:—"They are largely employed as general carriers and have almost a complete monopoly of the trade in salt, and some of them have thus acquired considerable substance. They are also the hereditary proprietors of several villages on the west of the Jumna, chiefly in the parganah of Chháta, where they rather affect large brick-built houses, two or more stories in height and covering a considerable area of ground, but so faultily constructed that an uncracked wall is a noticeable phenomenon. Without exception, they are utterly ignorant and illiterate, and it is popularly believed that the mother of the race was a Chanár woman, who has influenced the character of her offspring more than the Brahman father. The name is derived from *ahi*, the great 'serpent' Káliya, whom Krishna defeated; and their first home is stated to have been the village of Sunrakh, which adjoins the Káli-mardan ghát at Brindában. The Pándes of the great temple of Baladeva are all Ahivásis, and it is matter for regret that the revenues of so wealthy a shrine should be at the absolute disposal of a community so extremely unlikely ever to make a good use of them."

To the west of the Jumna the Ahivásis are merely zamíndárs and cultivators. Mr. Whiteway writes:—"They are a race well marked by several peculiarities. In appearance they are easily distinguished: the men by their

¹ Growse's Mathura, p. 10.

² *Ibid.*

head-dress, and the women by their way of wearing their hair. Their favourite occupation is the carrying trade. Trading in their own carts, they carry salt from Rájputána all over Northern India, bringing back sugar and other commodities in return. The better-off trade with their own money, and, in fact, the heads of the community are very fairly comfortable, and their villages are remarkable for the number of good masonry houses. At the same time, these distant journeys keep the male population absent from the villages for months at a time, and the tilling of the fields is left entirely to the women. It is therefore natural that as easily as an Ahivési may be recognised by his appearance, and his village by the number of carts, cattle and masonry houses, so his fields may be told by their careless and slovenly cultivation. The Ahivésis complain bitterly of the havoc the net-work of railways, now spreading over the country, is playing with their old occupation."

None of the Brahman clans entered and colonized the district in the same way as did the Játs and Thákurs, but many of them Brahman landowners, priests, &c. came with the Játs as their family priests. In this connection Mr. Whiteway's remarks may be quoted :—"In consequence of this a large part of the area they own lies imbedded in the Ját villages. In fact, it seems to have been a custom always to set aside a portion of a newly-founded estate for the family priest. These Brahman zamíndars hold on and cultivate to this day side by side with the Játs, having and claiming no special privileges beyond that appertaining to owning the land. In places where a share of the village was not given, it was frequently the custom to make over in full proprietorship an entire estate. A large portion of the tribe, however, have no connection with the land, but serve the numerous temples in the district. As a rule, the Brahmans in the district do not bear a very good character, their holy reputation seeming to set them above ordinary moral restraints. They are frequently lenders of money, especially in the trans-Jumna parganahs, and though there is only one family of any standing among them, there are some who have risen to affluence as usurers, and purchased considerable estates from their neighbours. The single family with any claim to gentility is that of the Pachauris of Gukhrauli in Mahában; this family migrated there from across the Jumna within a recent period. Since the emigration several of the members have obtained posts in the higher ranks of the Government service, and the family has acquired large possessions in this district and in Agra. Among the wealthiest of the Bráhmau caste must be counted the family of Jagdíspur in parganah Mahában, which has acquired about five villages, and that of Sulaipur Chandwára, of Sa'dabad, which owns about 8. The Brahman

family of Chhabari, in Mát, is also well off. All these three last have acquired their property by lending money at interest."

The Rájput clans returned as represented in the Muttra district, in 1881, were the following¹ :—

	Total population.	Females.		Total population.	Females.
Báchhal ...	5,788	2,224	Karandi ...	1	Nil.
Badesri ...	205	112	Katár ...	2	1
Bais ...	162	76	Karol ...	6	4
Bándi ...	1	1	Kathiyá ...	21	12
Bángar ...	101	48	Khángar ...	169	68
Bargalá ...	274	196	Kulbans ...	1	Nil.
Bargújar ...	237	130	Kunjar ...	4	2
Barhár ...	10	6	Lamboria ...	3	Nil.
Barkia ...	1	1	Lator ...	4	3
Barosánbáu ...	7	4	Nálgháns ...	10	6
Burwár ...	6	2	Námdcobansi ...	1	1
Behlar ...	20	8	Nindaur ...	1	Nil.
Bhudaufá ...	26	10	Nirbáhan ...	47	21
Bhal ...	302	287	Oria ...	362	189
Bháti ...	10	6	Pamár ...	511	204
Bhagoeri ...	7	3	Pandiáwat ...	3	2
Chandeli ...	21	6	Parihar ...	42	22
Chanwár ...	1	1	Punder ...	264	149
Chandrabansi ...	108	37	Paráj ...	123	70
Chhankar ...	69	51	Rachubansi ...	61	15
Chauhán ...	3,156	1,281	Rájkumár ...	29	13
Dasáwar ...	6	1	Rángar ² ...	5	4
Dáyar ...	1	1	Ráthor ...	193	86
Dhákrah ...	195	111	háwat ...	12	6
Dod ...	10	3	Rezdál ...	4	2
Faujdar ...	1	Nil.	Rekwár ...	5	1
Galábhár ...	4	2	Rewári ...	63	33
Gángre ...	7	6	Sánd ...	23	14
Gahlot ...	2,003	641	Sanswár ...	11	3
Golá ...	1	1	Sengar ...	13	8
Goni ...	5	2	Shághadhiá ...	13	7
Goráhar ...	9	7	Sheobansi ...	4	Nil.
Gaukhe ...	2	2	Sikháwat ...	4	1
Gaur ...	1,240	556	Sirohia ...	4	Nil.
Ilará ...	1	Nil.	Sisaundia ...	620	192
Hobansi ...	18	8	Siwania ...	2	2
Indoliya ...	354	183	Solankhi ...	107	56
Jádon ...	14,661	6,586	Sukarwér ...	186	81
Jáis ...	6,327	2,325	Súrajbansi ...	12	1
Jaiswár ...	48	36	Táuk ...	53	33
Janwár ...	24	14	Tarkhár ...	3,854	1,937
Jasáwat ...	2,972	1,437	Tomar ...	633	287
Játúrag ...	5	Nil.	Weswál ...	1	1
Janghará ...	758	258	Unspecified ...	541	246
Jhanjyár ...	34	15			
Kachhwáha ...	7,836	3,650			
Kahtar ...	2	2	Total ...	55,121	24,142

¹ The names and figures have been taken from the vernacular list compiled in the census office, and the former differ occasionally in form from the list printed in the census volume of 'Sex Statistics.' Accuracy in the orthography of caste names seems well-nigh impossible of attainment. Those in the text presumably represent the local version given by the people themselves.

² Rángar is any Musalmán Rájput, not a class of Rájputs properly speaking.

Of the above clans the Jádón is the most numerous (14,661); but the Jádons of Muttra are not recognized as equal in rank to the same clan in Rájputána, although their principal representative is the rájá of Awa,¹ whose estates are reputed to be among the wealthiest in the whole of Upper India. The origin of the name, Jádón, is traced by Sir Henry Elliot to Yádu or Yádava, but it would perhaps be more correct to say that Jádón, Jádú, and Yádava are etymologically the same, the former being corruptions of the last. The tribe traditionally belongs to the Lunar Race and professes to trace its descent in a direct line from Krishna. Yádu (according to the same writer, following Tod) is the patronymic of all the descendants of Budha,² the ancestor of the Lunar Race, of which the most conspicuous clans are now the Bhatti and Jhareja; while the title of Jádón is now exclusively applied to the tribe which appears never to have strayed far from the limits of the ancient Surasena, and we consequently still find them in considerable number in that neighbourhood. The large tract south of the Chambal, called after them Yáduvati, is in the possession of the Gwalior Marhattas and the state of Kirauli on the Chambal is now their chief independent possession.³ The name for the country and people round Mathura, given by Alexander's historians, is Surasena.⁴ Colonel Tod found, in 1814, what he believed to be the ancient city of Súrapur near Batesar (Baṭesvára) in the Agra district, which he supposed to have been the ancient capital of the country, named from a prince Surasen, this name being borne by two princes in the immediate ancestry of Krishna.⁵ It would seem however that Prayág (Allahabad) was the cradle of their race, whence they migrated to Muttra.⁶ That the Jádons of the Aligarh district trace their origin to Muttra has been mentioned in the notice of that district.⁷ Some Jádons are also found in Jewar in Bulandshahr, who are distinguished by the title Chaukar-zádá, and, by way of reproach, all inferior Jádons (called Bagri by their neighbours) are regarded as a servile caste and not generally admitted to intermarriages with the higher Rájputs of the neighbourhood. Wealth has, however, fostered pride, and the late head of the Awa family laid claim to trace his direct descent from Anand Pál, the son of the Kirauli rájá, Kumár Pál, and asserted that the Baresiri, Jaiswár and other self-styled Jádons were altogether

¹ Vide Gaz., VII. (Jalesar tahsil). Awa is now in Etah district, but there are still some villages belonging to the estate in Muttra. ² See the genealogical table of Krishna's descent in Mr. Growse's *Mathura*, pp. 52, 53 (3rd edition). ³ Suppl. Gloss., I., 128. ⁴ Tod's *Rájasthan*, I., 37. ⁵ 'Memoir of Greek, Parthian and Hindu medals found in India' in the *Transactions R. A. S.*, I., 314. Also see under Batesar in Gaz., VII. (Agra) and in Arch. Sur. Rep., IV., 221. ⁶ *Rájputána Gazetteer*, II., 170, and Tod's *Rájasthan*, II., 195. Colonel Tod's work (I., 78) may be referred to for the traditional account of the Yádu race. ⁷ Gaz., II., 393.

of an inferior stock. Jádons are also found in Hoshangabad in the Central Provinces, whither they emigrated after Akbar's conquests on the Narbadda.¹ In Moradabad, Etáwah, Cawnpore, Azamgarh, and Benares also families of Jádons are found.

Second in importance Mr. Growse places the Gauruas. The namedoes not occur in the list prepared in the census office for the reason, doubtless, that the members of the clan were all entered as Báchhals, Jasáwats, Kachhwáhas, &c., from the habit (mentioned below in the extract from Mr. Growse's "Mathura") they have of describing themselves by the appellations of those clans. Gauruas are called by Sir H. M. Elliot an inferior clan of Rájputs, who emigrated from Jaipur to the west of the Jumna, about 900 years ago, and are found in Bijnor, Agra, and Muttra, chiefly in the Sahár, Shergarh and Muttra parganahs of the last-named district. It has been asserted that the Gaurua of Muttra and Gurgaon districts is only a Rájput who practises karáo. Mr. Growse gives the following account of them²:—

"We have Gauruas, who call themselves—some Kachhwáhas, some Jasáwats, some Sisso-diyas, and so on, throughout the whole series of Thákur clans. The last-named are more commonly known as Báchhals from the Bachh-ban at Sehi, where their Guru always resides. According to their own traditions they emigrated from Chitor some 700 or 800 years ago,³ but probably at rather a later period, after Alá-ud-din's famous siege of 1303. As they gave the name of Ránera to one of their original settlements in the Mathura district, there can be little doubt that the emigration took place after the year 1202, when the sovereign of Chitor first assumed the title of Rána instead of the older Ráwal. They now occupy as many as 24 villages in the Chhátá parganah and a few of the same clan—872 souls in all—are also to be found in the Bhaugaon and Bewar parganahs of the Mainpuri district."

Rájputs are found chiefly in Chhátá, Mát, Sahpau, and Muttra, but no-where do they form so large a proportion of the population as do the Játs in the parganahs which are their head-quarters. About six-sevenths of the Rájputs are of impure blood and are not admitted by the higher clan to an equality with themselves. The crucial test of purity of blood is the rejection of the custom of *karáo*. The Gahlot, Chauhán, and Bargújar clans of Sahpau and Sa'dabad are pure, but with the exception of the resident zamíndárs of a few other villages all the remainder are of impure blood.

An account of the distribution of the clans and their relative position as proprietors of land is given in Mr. Whiteway's Settlement Report and may be quoted at length:—

"The Gahlots are hardly found west of the river Jhírna in Sa'dabad, and neither among them nor among the other Thákurs of the pure blood is there any local family of distinction or

¹ Supp. Gloss., I., 129.

² Mathura Memoir, page 12.

³ For a different account

importance. The Bargójars have none and the Chauhāns but little of their hereditary property left, while the Gahlots have allowed much of their land to pass to strangers. East of the Jumna the only impure clan is that of the Jāes of Māt; they are more careful cultivators than the clans across the Jumna, and have succeeded in retaining a good deal of their hereditary property; they boast no family of any standing. In the cis-Jumna tahsils the Jādons are the most important clan. In the north-west of Muttra they acquired a few villages, and they own some in Kosi, but the main body is found in Chhāta. Though not remarkable as cultivators, they are a thrifty body of men, somewhat given to lending money at interest, and the masonry houses scattered about their villages give them a more comfortable look than those of their neighbours and nearest allies, the Gauruas. There is no resident family of any distinction, but an offshoot from the clan, the Awa family in Jalesar, has acquired great wealth. The rāja of Awa has purchased seven villages from the Kachhwāhas in Muttra. While the Jādons have, therefore, succeeded in rather more than holding their own, the Gauruas have been fast losing their property, and, thriftless and bad cultivators as they are, there is no matter for surprise in their fall. The Jasāwats owned formerly the villages around and beyond Gobardhan, while the Kachhwāhas held the centre and east of parganah Muttra, but of their original possessions a mere fraction remains to them; the Iāchhals of Chhāta have been more fortunate, but in spite of most lenient treatment at last settlement several of their villages have passed from them entirely, and there is hardly one in which more or less of the area has not been transferred to other hands. The only family of note among the Gauruas was that of Chaudhri Daulat Singh, Kachhwāha of Rāi, a man much respected in his time, who for his services in the mutiny was given two villages in Chhāta and Rs. 7,000 in money. Since his death, however, his sons have been rapidly squandering their inheritance. Among non-resident Thākur zamīndārs the most important is the Rāthor ruling rāja of Kishangarh, who owns, as the grantee of the revenue, the large Abirāsi village of Parson of Muttra, in which, as he is in managing possession, he has succeeded in acquiring a considerable portion of the zamīndāri rights."

Of Banias the great majority belong to the Agarwāla clan. The Bania caste has long been a powerful one in this district, both from the wealth of many of the chief men, and from the fact that most of the petty money-lenders and by far the majority of the patwāris are of this caste. Several of the hereditary kánungos are also Banias. The Seth family of Muttra is the most important.¹

The ranks of the Jains or Sarāngis in this district are recruited exclusively from the trading classes, and some few belong to the Agarwāla subdivision, but most of them, including Seth Raghunāth Dās, are of the Khandel *gachhha* or *got*. Mr. Growse writes²;—"They are not making such rapid progress here as notably in the adjoining district of Mainpuri and in some other parts of India. In this centre of orthodoxy the 'naked gods' are held in unaffected horror by the great mass of Hindus, and the submission of any well-to-do convert is generally productive of local disturbance, as has been the case more than once at Kosi. The temples of the sect are therefore few and far between, and only to be found in the neighbourhood of the large trading marts."

¹ *Vide infra* (Leading families).

² Memoir, p. 12.

Space forbids a longer notice of this caste, of which a very full account has been given in Sháhjahánpur.

Of the other castes the census of 1881 gives the population of the following, selected on account of their numerical importance¹ with reference to the total population of the North-Western Provinces and Oudh :—

Caste.	Total population in 1881.	Females in 1881.	Caste.	Total population in 1881.	Females in 1881.
Ahar	96	46	Káyath	4,015	1,856
Ahír	6,027	2,780	Kori	18,209	8,398
Barhai	13,835	6,730	Kumhár	11,016	5,197
Bhangl	12,543	5,993	Kurmi	65	27
Bhát	1,936	937	Lodh	2,303	1,130
Bhurji	855	371	Lohár	2,841	1,376
Chamár	99,410	47,396	Máli	7,542	3,481
Dhánuk	6	2	Malláh	5,056	2,314
Dhobi	5,676	2,693	Nái	13,402	6,377
Dom	3	2	Pási	40	29
Gadaria	15,559	7,174	Sonár	3,981	1,858
Gosáin	262	123	Taga	1	Nil.
Gújar	7,180	3,179	Tamoli	503	247
Ját	117,265	51,993	Teli	1,518	764
Káchhi	4,003	1,851	Unspecified	32,496	14,954
Kahár	5,878	2,759			
Kalwár	807	346			
Khatik	4,200	2,001	Total	398,529	184,373

Space will only permit of our describing a few of these castes, but notices will be found of most of them in other volumes of this series.

Nearly half the Ahírs are found in tahsils Sahpau and Mahábau, where they have retained a good deal of their property. The Muttra district is, however, the place of presumed origin of all the Ahírs of these provinces.² They have three grand divisions (writes Sir Henry Elliot)—the Nandbans, the Jádubans, and the Gwálbans—which acknowledge no connection except that of being all Ahírs. The Nandbans are usually found in the Central Doáb : Jádubans to the west of the Jumna and in the Upper Doáb : and Gwálbans in the Lower Doáb and Benares. Jádubans and Gwálbans in these provinces do not seem to have any sub-divisions (*got*) : but the latter in Behar have four.³

The Nandbans have 84 subdivisions, of which 22 are named by Sir H. Elliot as principal ones.⁴ In the tract called by him Bighoto—a term admittedly of local application, but given to a stretch of country bordered by Mewát on the east, Loháru on the west, Hariána, Dhundhoti and Chandán on

¹ None whose total is less than 100,000 in the whole North-Western Provinces and Oudh is included. A supplementary list of the excluded castes is given a little further on. ² Suppl. Gloss., I., 3. ³ *Ibid.*, I., 99. ⁴ *Ibid.*, I., 5.

the north and by Rath on the south, including Rewári, Bawal, Kanon, Patodi, Kot Kásim, and a great part of the Bahraich *jágir*¹—the subdivisions (got) of Nandbaus number 64. The Khoro and Aphiria dispute the first place amongst these, but they all intermarry on terms of equality, avoiding, like all other Ahírs, only the four *gots* nearest related. Ahírs conform to the customs of Gújars and Játs in respect to the marriage of elder brother's widows wherever they are much intermixed, as in the Dehli neighbourhood: but in the Central Doáb the tribes of the Ahírs forswear all connection with Gújars and Játs, considering them inferior to themselves. Even Brahmans will in some districts take milk, water, and sometimes food from certain clans of Ahírs, such as the Baiswaria Gwálas. Mr. Beames, who mentions this, states that the explanation popularly given is that Gwálas are purified by attendance on that sacred animal, the cow, but he hints that a more probable reason is to be found in the alleged origin of the Ahírs from a Brahman father.² This descent according to Manu (X. 15) is through an Ambasthá woman or one of the Baid (physician) caste. The Brahma Purána refers them to a Kshatria father and a Vaisya mother. Whatever their origin, their ancient consideration exceeded what is now vouchsafed to them. They gave their name—Abhíra, the region of cowherds—to the country on the western coast of India from the Tápti to Devagarh (mentioned in the Puráns), and in the beginning of our era were rájas of Nepál. They have even been identified with a race that produced the Pála or shepherd dynasty, which ruled in Bengal from the 9th to the latter part of the 11th century, and has been credited with at some period holding universal dominion in India.³

The subdivisions—so far as they were recorded at the recent census—found in this district were the following, but the very large proportion of 'unspecified' detracts greatly from its value:—

Bansiya	...	...	5	Gwálbansi	...	...	35
Belodna	...	...	3	Jádubansi	...	...	476
Bethanyán	...	...	26	Nandbansi	...	...	1,644
Chhengiya	...	...	37	Phátak	...	...	107
Dágar	...	...	22	Sultáni	...	...	3
Dhondh	...	...	4	Unspecified	...	...	3,070
Ghosi	...	...	2				
				Total	...	...	5,434

Of Chamárs there are 99,410,⁴ spread very evenly all over the district.

As owners of land they are very subordinate, but they cultivate, chiefly as tenants-at-will, some 5 or 6 per cent. of the area. They are mostly employed by the zamúdárs, receiving wages in kind.

¹ *Ibid.*, II., 37. The name Bighoto is derived from Bigha Ráj, a worthy descendant of the illustrious Chauhán Pirthi Ráj. ² *Ibid.*, I., 6. ³ For an account of the Pála Kings of Magadha and their dates, see Archaeological Survey Reports, XI., 177. ⁴ As against 111,314 in 1872.

Sir Henry Elliot enumerates seven sub-classes of Chamárs—Jatua, Kaiyán, Kuril, Jaiswára, Jhúsia, Azamgarhia or Birheria, and Kori or Korchamra. The last should, Mr. Beames thinks, be written *korhi* (leprosy), as the Chamárs from their habits are peculiarly liable to leprosy. He also remarks upon the want of agreement in the enumeration of the alleged seven subdivisions. Mr. Sherring gives them in a different order and adds the principal occupation of each: (1) Jaiswára: many are servants; (2) Dhúsia or Jhúsia: shoe and harnessmakers; (3) Kori: weavers, grooms, field labourers; (4) Dosálh: grooms; (5) Kuril: workers in leather; (6) Rangiya: leather dyers; (7) Játúa: labourers. Next to the Jaiswáras should properly be placed (8) Mangatiwa, who are really a distinct subdivision and subsist by begging. Two other clans are found in Benares, (9) Katna: leather-cutters; and (10) Tantua: manufacturers of strings of leather (*tdnt*). But these ten do not exhaust the list of subdivisions, some of which take the names of higher castes like Kanaujia.¹

Dhúars, included among the unspecified in the census returns, are a peculiar clan, who, emigrating from the neighbouring district of Gurgaon, have acquired considerable property and influence. They claim to have descended from a Bráhmaṇ by a Bania woman, but are usually classed as Banias. They combine the office aptitude of the Káyath with the keen scent for money-making and the flinty-heartedness to a debtor characteristic of a Bania. They are, consequently, mostly hard landlords and wealthy men. They are hereditary kánungos of Muttra and Ohbáta.² Mr. Sherring classes the Dhúars with Vaisyas. Their original seat was Dehli, where they still enjoy a distinguished position on account of their talents as singers, and cultivate a peculiar strain in which they are unsurpassed. They are noted also for their rigid observance of religious ceremonies, and it is said that none of their tribe have deserted the ancient religion for Jainism. They occasionally rose to high positions during the Muhammadan period.³ The caste is now widely distributed, members of it being found in most trading centres of North and Central India.

Gújars now only number 7,180, as, after their defeat near Shergarh in the mutiny, there was a considerable emigration. They only retain a very small proportion of what they once held. In Kosi they have nothing left, in Muttra very little, and in Ohháta they have lost 13½ villages. They bear much the same character here as in other districts of the North-Western Provinces. They are poor cultivators, turbulent, and addicted to cattle-lifting. Their villages, confiscated for mutiny, were given to Rája Gobind Sinh of Háthras. There are said to be only about 500 of this caste in the parganahs to the east of the Jumna.

The traditions of the Gújars have been noticed in a former volume of this series.¹ Their origin has been much debated, some asserting that they are of Rájput descent, while others (*inter alia*, Colonel Tod) would class them as aborigines. They are found all over the country round Dehli, and as far west as the Indus, in the Upper Doáb and in Upper Rohilkhand. Crossing the Jumna we find them in Kúneh (a tahsíl of Jalaun district) and the northern part of Bundelkhand, and also near the Chambal and Narbadda. Reverting to the question of their origin, it may be noted that Mr. Beames regards the story as most probable which makes them a cross between Rájputs and Ahírs, and General Cunningham considers that the Gújars are the same as the Tochari, *alias* Yuchi, *alias* Kushan, *alias* Kaspiroei, *alias* Thogarii, *alias* Kuei Schwang, *alias* Korson, Korsea, Khoransu or Korano. This remarkable tribe were, it would seem, originally Tartars, but by a series of events, related apparently by Chinese, Muhammadan, and Greek historians, they were led to give their name to Khorasan : also to Gurjjararashtra, the modern Gujarát.

The sub-classes of Gújars found at the recent census with the population of each is given below, but nearly six-sevenths were returned as unspecified. Space will permit merely of a bare enumeration, but each clan has doubtless a history which might be worth recording :—

	Total.		Total.
Bahsoiya ...	4	Emni ...	3
Balasiyá ...	6	Kámru ...	4
Balsí ...	1	Kapásyá ...	3
Beli ...	1	Katári ...	1
Bhátí ...	26	Kharel ...	1
Bhúkhan ...	34	Lohmor ...	1
Biswál ...	60	Nagri ...	5
Borá ...	29	Narará ...	5
Chobará ...	37	Sanádho ...	1
Chhonkar ...	14	Tonwar ...	772
Dágar ...	1	Tongar ...	23
Lígas ...	10	Unspecified ...	6,137
Doli ...	1	Total ...	7,180 ²

¹ See Gaz., II., 185.

² 3179 females. The orthography of the names is taken from the vernacular lists compiled in the census office, and accuracy cannot be vouched for it.

With the exception of Meerut (where they were 144,034) Játs¹ are more numerous in Muttra than in any other district in these provinces, the total for Muttra at the recent census (1881) being 117,265. Much has been said about this caste in previous notices.² Its importance, however, in this district, which may justify a somewhat lengthy notice, is evident from the fact that in four parganahs Játs hold more than half the cultivated area: and in the others are an important element in the agricultural population, of which, indeed, Mr. Whiteway calls them the "back-bone." He notices their peculiar custom regarding concubinage, by which a woman of any caste may be taken to a Ját's house and her children are considered of the father's caste, having equal rights of inheritance with his other children. The custom goes even beyond this, and in some cases the child of such a woman (by any previous husband, of whatever caste), whom she may bring with her to her new home, has rights of inheritance in his step-father's family. Such children are known as *lainrdra*.³ The following account of the caste is taken from Mr. Whiteway's Settlement Report:—⁴

"The name of the chief *páls* or *gots*, with the number of villages they have founded in each parganah, are as follows in the order of presumed numerical importance.

Name of <i>pál</i> or <i>got</i> —(i.e., subdivision of the Ját caste.)	Villages founded by Játs in parganahs								
	Sa'dabad.	Salpau.	Mahában.	Mát.	Noh-Jhil.	Muttra.	Chhāta.	Kosi.	Total.
Nohwar	1	...	1	...	66½	...	...	...	68½
Pachahra ... ..	...	...	21	18	...	...	...	...	39
Kuntel ... ..	...	...	..	...	...	28	1	...	29
Ilagn	16	...	13	...	...	..	...	...	29
Ráwat	3	...	15	2	...	1	...	5	26
Badhautia	13	3	...	...	...	...	...	...	16
Bahinwár ... ..	...	...	...	..	...	...	...	15	15
Godhe ... ..	...	...	14	...	...	...	...	...	14
Narwar ... ..	...	...	...	...	13½	...	...	...	13½
Surait	1	...	12	...	...	...	...	1	14
Sakarwár ... ..	...	...	12	...	...	...	...	...	12
Tehnua	9	...	...	...	1	...	...	...	10
Gathanna	1	1	...	...	...	...	...	8	10
Dusár ... ..	...	...	9	...	...	...	...	...	9
Bharangar	1	...	8	...	...	...	...	...	9
Gaur ... ..	...	...	8	...	...	...	...	...	8
Dhankar	1	1	5	...	...	...	1	...	8
Mithe ... ..	...	...	3	3	...	...	...	...	6
Denda ... ..	...	...	...	...	...	...	...	6	6
Gabar	2	...	...	2	...	...	...	...	4
Chhonkar	1	...	3	...	...	...	...	...	4
Minor clans	8	3	5	3	2	8½	4½	3	32
Total	57	8	129	28	83	32½	6½	38	382

¹ See Growse's *Mathura*, pp. 7-9.

² *Vide* Gaz., II., 187; III., 261, 396.

³ Whiteway:

Settlement Report, p. 33.

⁴ *Ibid.* No census of the separate clans of Játs was taken, as in the case of Rájputs, Gújars, and Ahírs.

" The Nohwar and Narwar, who are so nearly related as to be prohibited from intermarriage, form, therefore, the most compact and important body of Jāts in the district; the former take their name from their original settlement of Noh Khāa, the latter have their head-quarters in Barauth. Their position in the caste may be estimated from the fact that, while they take their wives from the Pachahras and other clans of the south, they only give their daughters to the Sinsiwārs and other superior clans of the west. They claim, of course, a descent from Pirthi Rāj; but, coming to later times, they say that their common ancestor lived in Jartauli of Aligarh.¹ He had two sons, one of whom, Rati Rāo, settled in Noh, while the other colonized Narwar. The children of Rati Rāo gave up Noh to their family priests and founded the villages of Bhenrai and Bajna, whence they spread over the pargannah; a descendant of the brother who settled in Narwar founded Barauth, from whence have sprung the hamlets which now constitute several separate villages. These Jāts are a fine well-made set of men, straightforward and comparatively truthful, but turbulent and intensely clannish in spirit. In the mutiny they attacked and plundered the tahsili, and several patwāris suffered for their unpopularity with their lives. They were, in fact, assisted actively or passively by the whole pargannah, and of all the villages only one, Tehra, was found faithful, the Malkānas of which sheltered the tahsildar and his officials. In return they received some money rewards, and one-tenth of their revenue was remitted for the term of settlement. The Pachahra founded taluka Aira Khara of Mahāban, and thence taluka Dunetiya of Māt. The Kuntel are found in taluka Sonkh of Muttra and the neighbouring large villages of Mungerra, Bachhgān and Pāli. The Rāwat, Godhe, and Dasār have their head-quarters respectively in talukas Sonkh, Rāya, and Sonai, all of Mahāban. When we acquired the country the Jāt rāja of Bhartpur owned some property to the east of the Jumna and had certain rights on the west. To the east of the river he now owns the village of Pānigaon in Mahāban and nearly 400 acres of land in four other villages of the same pargannah and a small patch in Māt; for these lands he pays no revenue to Government, and in the village of Pānigaon the zamīndāri rights were conferred on him after the mutiny of the zamīndārs in 1857. To the right of the river, he owns the whole of the village of Sakitra near Gobardhan, for one-quarter of which he pays no revenue; he further owns 500 acres of revenue-free land scattered over several villages. Up to 1825 the pargannah of Gobardhan was also held in jāgir by a near relative of his family."

The Káyaths have much less power and influence in this district than they have in most, their place in petty offices being largely taken by Banias; still they furnish one hereditary kánungo each to Mahāban, Kosi, and Chhāta. The old kánungo family of Noh-Jhil was Káyath, but it has been reduced to great indigence. The total number of the caste is 4,015, and among them there is no resident zamīndār of any importance. Of the non-residents, the heir of the Bengali Lālā Bábú who acquired his property early in this century by wandering about the district dressed as a religious mendicant professing great sanctity and persuading the zamīndārs, then ignorant of the full value of their rights, to part with their villages to him for the most ludicrously inadequate considerations) is the only one of note. The income of these villages annually is now

¹ Perhaps they were driven out by Ibrāhīm Lodi, when he attacked Jartauli for rebellion—Elliot's *Historians*, Vol. V., p. 104.

about four to five times the sum paid for them originally, and as large properties were also purchased by him in Bulandshahr and in Bengal, the family is now reckoned among the wealthiest in Bengal. In this district almost all these sales were made merely by the lambardárs, the pattidárs never having been consulted. As there was no enquiry into rights and no record of them until Regulation VII. of 1822, this matter was not known earlier. Mr. Boddam then made some attempts to remedy the injustice, but was foiled by legal difficulties. The income from the villages in this district is devoted to the Krishn Chandrama temple in Brindában, which was founded by the Lálá Bábu. "Whether there were any verbal stipulations between the former zamíndárs and the Lálá Bábu as to the lenient treatment of the former, cannot be said, but no such leniency has ever been shown them. The estate is managed by agents living in Brindában, and its owners, 1,000 miles away, know little of and care less for it." ¹ The estate consists of four villages in Muttra, ten in Ohháta, and one in Kosi; almost all large villages and famous as places of pilgrimage.

The Kori or weaver class number 18,209.² They suffer extremely in famine years for two reasons; the price of cotton, from the failure of the crop, ranges so high that it becomes prohibitory, while the general poverty stops the demand for cloth, which falls in price. This was very marked in the scarcity of 1877-78, when this class underwent great privations.

Although the religious classes, such as Gosáins, mendicants, &c., are stated in the settlement report to number 16,012, the Gosáins appear as numbering but 262 in the census of 1881. The cause of this difference is probably to be found in the vague use of the term Gosáin, which popularly means any devotee, whether he lives a life of celibacy or not—whether he roams about collecting alms or resides in a house like an ordinary citizen. Many engaged in trade or owning land are thus designated, although the religious aspect of their lives is not by any means apparent. But none of these are without some other distinguishing name, which has probably been the one under which they were enumerated at the census, such as Sannyási, Udási, Sri Vaishnao, Rádha Vallabhi, Kanphatha, Nirmali, Sivachári, Bramhachári, Kabírpantbi, &c. The proper place to describe these numerous subdivisions will be in the Benares notice as representatives of all will be found in that city. In Muttra the most prominent are the Rádha Vallabhis, and their temple at Brindában is a handsome building of special architectural interest. They worship Krishna and his wife

¹ Settlement report, p. 38.

² As against 17,498 in 1872.

Rádha. Of this sect we shall have something to say further on: they are mentioned here only as one of the subdivisions of the Gosáin caste, and it will be more convenient to defer to the Benares notice the description of the mode of creating Gosáins and their numerous, but sometimes revolting, customs. Here in Muttra are several Gosáins who own more or less land, but the largest zamindár is Parshotam Lál, the head of the Gokulastha or Vallabhachárya sect, who holds seven or eight villages and is a man of great wealth. "He is himself," writes Mr. Whiteway, "a person of good character, but is exceedingly unfortunate in his agents, through whom his estates are entirely managed." Among the other Gosáin landlords are Gosáin Girdhar Lál, late of the Udaipur State, Gosáin Akhalanand, Mahant Banmali Charan, and others.

From the vernacular lists compiled in the census office the following appear to

The "unspecified" castes be the details of the "unspecified" castes, and they are of the census. added here as it may be of interest to ascertain them:—

Name of caste.			General occupation.			Total population.
Arakh	...	...	Cultivator, village servant	...	...	1
Bahelía	...	...	Fowler	...	...	957
Balái	...	...	Weaver	...	...	178
Banjárs	...	...	Travelling grain dealer	...	...	334
Bargi	...	...	Servant, cultivator, shikári	...	...	1,121
Bári	...	...	Leaf-plate seller, torch-bearer	...	...	163
Barvár	...	...	Grass-cutter, seller	...	...	242
Báwaria	...	...	Cultivator, thief	...	...	35
Buláhar	...	...	Village messenger	...	...	362
Chhipí	...	...	Calico printer	...	...	1,152
Chobdár	...	...	Servant	...	...	187
Darzi	...	...	Tailor	...	...	3,151
Devotees	...	...	Mendicancy	...	...	13,923
Dhunía	...	...	Cotton carder	...	...	2,883
Ghosi	...	...	Milkman, cultivator	...	...	22
Habhora	...	...	Cultivator, thief, shikári	...	...	572
Joshi	...	...	Servant, receiver of alms	...	...	385
Juláha	...	...	Weaver	...	...	12
Kanchan	...	...	Dancer, prostitute	...	...	834
Kanjar	...	...	Rope maker, trapper	...	...	825
Khangár	...	...	Chaukidár, thief	...	...	49
Khatrí	...	...	Merchant, servant	...	...	1,432
Kunjra	...	...	Greengrocer	...	...	189
Manihár	...	...	Glass bangle maker	...	...	191
Meo	...	...	Cultivator, cattle breeder	...	...	647
Nat	...	...	Acrobat	...	...	120
Orh	...	...	Trader	...	...	883
Patwa	...	...	Braid, fringe, tape maker	...	...	246
Ráj	...	...	Mason	...	...	74
Rewári	...	...	Agriculturist...	...	...	593
Ronia	...	...	Trader, cultivator	...	...	25
Sapera	...	...	Snake charmer	...	...	8
Thathera	...	...	Brass and coppersmith	...	...	364
Unspecified	...	...				346
Total						32,496

The 'devotees' in the above list appear in the census returns under a few very broad classes, each of which includes many sub-divisions. Of the total number 9,812 are classed as Devotees. Bairágis (3,997 females), and 3,627 as Jogis (1,714 females).

Discarding the fourfold division of the 1872 census the recent enumeration of 1881 gives us Musalmáns by religion and a few tribes (originally converts from Hinduism) by their usual designations. Musalmáns. The total number of Musalmáns in the district was only 58,088 (27,297 females), and of these all were Sunnis (orthodox) except 356 Shiás (168 females). The total of the Nau-muslims or original Hindu tribesmen converted to Islám, was 5,278 (2,321 females), distributed as follows:—Muhamadan Rájputs 3,184 (1,392 females); Gújars 14 (7 females); Játs 174 (76 females); Mewátis 1,906 (816 females.)

These classes are generally known here (as in Agra) by the name Malkána, which, it is said, they do not use to describe themselves by.¹ Malkánas. They are mostly Rájputs of the Jáes and Gaurua sub-divisions, and still retain many of their Hindu customs. They are described as careful cultivators, but their possessions are small.

Of the other Musalmáns, only one family has any pretensions to antiquity, and that one is the Sayyid colony of Mahában, which claims descent from a Mashhad adventurer, Súfi Yahiya, who conquered the town from the Hindus, in the reign of Alá-ud-dín, by the stratagem of introducing his armed men into the fort in litters as Hindu ladies on a pilgrimage. They own three villages in pargana Mahában as part of their ancestral property, and another village has been acquired by them. The Muhammadan family settled at Sa'dabad is, though not boasting a long ancestry, the one of this religion of most importance in the district.

Whatever their tribe, the people of Muttra may be divided, according to occupation, into two primary classes, those who as land-holders or husbandmen derive their living from the soil and those who do not. Occupations. To the former class the census of 1881 allots 374,787² persons or 55·80 per cent. of the total population, and to the latter 296,903 or 44·20 per cent. Excluding the families of the persons so classified, the number allotted to the former class is reduced to 201,738³ members actually possessing or working the land. The details may be thus tabulated:—

¹ The derivation of this word is doubtful, but it is probably a Muhammadan name like that of the Láikhnis in Bulandshahr (Note by Mr. Growse). ² Census form XXI. ³ Census form XII, table 6.

				Males.	Females.	Total.
Landholders	...	...		30,544	6,550	37,094
Cultivators	...	...		86,649	42,238	127,887
Agricultural labourers	...	...		26,108	9,460	35,558
Estate office service ¹	...	...		1,199	...	1,199
Total agriculturists				143,500	58,238	201,738

Following the example of English population statements, the census dis-

Classification according to census returns. tributes the inhabitants amongst six great classes—

(1) the professional, (2) the domestic, (3) the commercial, (4) the agricultural, (5) the industrial, and (6) the indefinite. The first or professional class numbered 10,742 males, amongst whom are included 4,124 persons engaged in the general or municipal government of the country, 311 engaged in the defence of the country, and 6,307 engaged in the learned professions or in literature, art, and science. The second or domestic class numbered 1,798 members, and comprised all males employed as private servants, washermen, water-carriers, barbers, sweepers, inn-keepers and the like. The third or commercial class numbered 7,452 males; and amongst these are all persons who buy or sell, keep or lend money, houses or goods of various kinds, such as shop-keepers, money-lenders, bankers, brokers, &c. (3,805); and persons engaged in the conveyance of men, animals, goods and messages, such as pack-carriers, cart-drivers, &c. (3,647). Of the fourth or agricultural class something has already been said; but besides the 143,500 males engaged in agriculture and horticulture as shown in the preceding table, the census returns include in this class 2,974 persons engaged about animals, making a total of 146,474. The fifth or industrial class contains 57,256 members, including all persons engaged in the industrial arts and mechanics, such as dyers, masons, carpenters, perfumers, &c. (4,698); those engaged in the manufacture of textile fabrics, such as weavers, tailors, cotton-cleaners, &c. (20,065); those engaged in preparing articles of food, such as grain-parchers, confectioners, &c. (13,133); and, lastly, dealers in all animal, vegetable and mineral substances (19,360). The sixth or indefinite class contains 137,245 members, including labourers (24,776); persons of independent means (25), and persons of no specified occupations (112,444).

From the lowest or labouring classes are obtained nearly all the recruits for emigration to the colonies. During the past ten years (1873-82³) altogether 2,912 persons were registered for emigration, including 1,789 males, 665 females, and 458 children.

Emigration.

¹ That is, agents (*kārinda*), orderlies and messengers (*chaprāsī*), and others employed by landholders in the management of their estates.

² Up to 15th September.

Their destination was Demerara, 1,104 ; Trinidad, 714 ; Natal, 279 ; St. Lucia, 131 ; Jamaica, 30 ; Fiji, 55 ; and the French colonies, 569. But Mr. Neale, the collector, writes :—" Judging from the past year (1882), I should think that not a tenth part of these were residents of this district. They were nearly all indigent strangers picked up while hanging about the sacred shrines, &c."

The number of villages or townships inhabited by the population, agricultural and otherwise, is returned by the census of
 Towns and villages. 1881 as 855. Of these 695 had less than 1,000 ; 158 between 1,000 and 5,000 ; 4 (Chhāta, Surfr, Mahāban, and Kursanda) between 5,000 and 10,000 ; and 3 (Muttra, Brindāban, and Kosi) over 10,000 inhabitants. Amongst the villages are distributed in the present year (1882) 1,365 estates (*mahdī*), but their number is by partition liable to constant increase.

The ordinary dwellings of the people do not differ substantially from those described, in a former volume, for the neighbouring district of Agra [*vide* Gaz., VII., 488]. The
 Dwellings. city of Muttra itself does not lack stately edifices, but such, whether palaces or temples, are all, comparatively speaking, modern. Of the latter class of buildings we shall have something to say presently ; as regards both may be noticed the intermingling of squalor with splendour, by no means an unfamiliar experience in the East. It is here shown in the obtrusion, amidst the handsome and imposing buildings that elsewhere face the public thoroughfares, of mean-looking, broken-down hovels, the mud-built dwellings of the poor. With two exceptions all the buildings, both secular and religious, in Muttra itself have been built during the less than eighty years of British rule.

The general design common to all the modern buildings has been thus described by Mr. Growse :—" The front is of carved stone with a grand central archway and arcades on both sides let out as shops on the ground-floor. Storey upon storey above are projecting balconies supported on quaint corbels, the arches being filled in with the most minute reticulated tracery of an infinite variety of pattern, and protected from the weather by broad eaves, the under-surface of which is brightly painted."

Stone-carving, the single indigenous art of Muttra, is carried to great perfection ; and in the panels of reticulated tracery (*jālī*), found in the pavilions of many private houses as well as in all the temples, the native artist has studied, generally with success, to produce the most exquisite designs.

But it is in its religious buildings—its many temples and its few mosques
 Religious buildings. —that the architecture of Muttra is best studied. Individual instances will be noticed under the next

heading (archæology) and in the articles on important places given at the end of this memoir. Here it is proposed to sketch very briefly the peculiarities of the different styles of architecture represented in the district.

If we may believe a recent essayist (the author of an article on *The Ancient Architecture of India*, in the *Edinburgh Review* for October, 1882), Indian architecture has generally stayed at home. Two specimens and two only, the pagoda of China and the pavilion of Brighton, can be certainly said to have emanated from this country. The opposite process, however, undoubtedly took place and foreign styles were imported into India. Thus, the earliest of which any example remains in this district, is that called by Mr. Growse the Indo-Greek, or as some prefer to style it, the Indo-classical, Græco-Bactrian, or Græco-Buddhist. Of the pre-Aryan, wooden architecture, represented in the rock-cut Chaitya-halls of southern India, no trace has here come down to us. The specimen of the Indo-Greek architecture is a small fragment found in the Ambarisha hill, where (according to Mr. Growse) a niche is supported by columns with Ionic capitals. This single specimen shows that the statement made by the writer already quoted, that "no remains [of the Indo-classical style] have been found in the plains south of the Jhelum or Hydaspes," requires modification; the questions that naturally suggest themselves as to the mode in which this style penetrated so far as Muttra, interesting though they are, cannot be entered upon here; but the subject has been discussed with some fulness in the article already mentioned.

Next after the Indo-Greek Mr. Growse places the Indo-Scythian; of this he tells us there are a few actual architectural remains and a considerable number of sculptured representations. To this period he attributes the plain square bases, cut into four steps, found at the Chauwāra mounds in the immediate vicinity of Muttra, and also a bell-shaped capital obtained in a garden near the Kankāli tilā, which is an extensive mound between the Bhartpur and Dig gates of the city. Surmounting the capital was an inscribed abacus with an elephant standing upon it. The inscription bears the date *sambat* 39, and mentions the name of King Huvishka. No complete column of this style has been recovered; it was peculiarly Buddhist and perished with Buddhism. It was followed by the mediæval Brahmanic style, which spread all over upper India in the period immediately preceding the Muhammadan conquest. Its distinctive feature was the bell-shaped capital in the form of a vase with masses of dependent foliage at its four corners. The shaft itself frequently springs from a similar vase set upon a moulded base. "In

early examples," writes Mr. Growse [*Mathurá Memoir*, p. 171], "as in a pair of columns from the Kankáli tlla and a fragment from Shergarh, the shaft has a central band of drooping lily-like flowers, with festoons dependent from them. Later on, instead of the band a grotesque face is introduced, with the moustaches prolonged into fanciful arabesque continuations, and strings of pearls substituted for the festoons, or a knotted scarf is grasped in the teeth and hangs half down to the base with a bell attached to its end. Occasionally the entire shaft or some one of its faces is enriched with bands of foliage. Probably for the sake of securing greater height, a second capital was added at the top, either in plain cushion shape, or carved into the semblance of two squat monsters supporting the architrave on their head and upraised hands. For still loftier buildings it was the practice to set two columns of similar character one on the other, crowning the uppermost with the detached capital as above described; afterwards it became the fashion to make even short columns with a notch in the middle, so as to give them the appearance of being in two pieces. Examples of this peculiarity may be seen in the Chhatthi Pálna at Diabá-ban and the Dargáh at Noh-jhil. The custom, which prevailed to a very late period, of varying the shape of a shaft by making it square at bottom, then an octagon, and then polygonal, is probably of different origin and was only a device for securing an appearance of lightness."

From about 1200 to 1550 A.D. there is, as regards architecture, a blank in the history of Muttra. At the end of this period the eclectic style, fostered, if not created, by the Emperor Akbar, began to appear. It has fewer better examples than the five older temples at Brindában. It, however, lasted little longer than Akbar's reign; for the temple of Rádha Ballabh in Brindában, built in the time of Jahángir, is regarded by Mr. Growse as the last example of the style. According to that writer, the characteristic note of the eclectic order of architecture was the parallel exhibition rather than the fusion of the Hindu and the Muhammadan methods. Indian architecture, as now exhibited in Muttra, is described as "the result of Muhammadan influences working upon a Hindu basis." It is a method that has reached the stage of decay and requires for its revivification some impulse from without.

After the eclectic came the Ját style. This is best seen in the tombs and palaces erected by Súraj Mal, the founder of the Bhartpur dynasty, and his immediate successors. "In these," writes Mr. Growse, "the arch is thoroughly naturalized; the details are also in the main dictated by Muhammadan precedent, but they are carried out with much of the old Hindu solidity and exuberance of fanciful decoration. The arcade of the

Ganga Mohan Kunj at Brindávan is a very fine specimen of this style at its best. In later buildings, as in those on the bank of the Mánasi Ganga at Gobardhan, the mouldings are shallower and the wall-ornamentation consists of nothing but an endless succession of niches and vases repeated with wearisome uniformity. The Bangala, or oblong alcove, with a vaulted roof of curvilinear outline, is always a prominent feature in this style and is introduced into some part of every façade. From the name it may be inferred that it was borrowed from Bengal and was probably intended as a copy of the ordinary cottage roof made of bent bambus. It does not appear in Upper India till the reign of Aurangzeb; the earliest example in Mathurá being the alcoves of the mosque built by Abd-un-Nabi in 1661 A.D.

The last method to be described, that of the present day, is regarded by Mr. Growse as the legitimate descendant of the Ját style. "It differs from it in precisely the same way as perpendicular differs from decorated Gothic. It has greater lightness, but less freedom: more elaboration in details, but less vigour in conception. The panelling of the walls and piers is often filled in with extremely delicate arabesques of intricate design; but the effect is scarcely in proportion to the labour expended upon them; for the work is too slightly raised and too minute to catch the eye at any distance. Thus, the first impression is one of flatness and a want of accentuation; artistic defects for which no refinement of detail can adequately compensate. The pierced tracery, however, of the screens and balconies is as good in character as in execution. The geometrical patterns are old traditions and can be classified under a few well-defined heads, but they admit of almost infinite modifications under skilful treatment. They are cut with great mathematical nicety, the pattern being drawn on both sides of the slab, which is half chiselled through from one side and then turned over and completed from the other. The temples that line both sides of the High Street in the city, the monument to Seth Mani Rám in the Jamuná bág and the porch of the museum itself are fine specimens of the style, and are conclusive proofs that, in Mathurá at all events, architecture is, to this day, no mere galvanized revival of the past, but is still a living and progressive art."

In the above rapid sketch of the various styles of architecture found in the district, Mr. Growse's classification has been followed; but, as the reader is doubtless aware, there are many subtle distinctions and subdivisions made by other authorities. Thus, while Mr. Growse refers to the eclectic style as a continuous one, it is broken up by one writer [Mr. H. G. Keene, *Handbook to Agra*, pp. 107-110] into five periods, and by another [General Cunningham,

Archæological Report, III., 13] into eight. The foundation of the eclectic school is by both the last-named writers assigned to the Ghoriconquerors of Hindustân, the first fine product of it being the tomb of Altamsh at old Delhi, built about 1235 A.D. Mr. Fergusson [*History of Indian and Eastern Architecture*, p. 509] calls this 'the Pathân style of Indian Saracenic architecture.'

The last-named authority tells us very little about Muttra. He makes a passing reference to the pillars of a Buddhist rail found by General Cunningham at Muttra itself, which will be noticed under the head of Archæology, and only enters into anything like detailed description with respect to the Brindâban and Gobardhan temples, or, to write more accurately, of one temple at each of these places. These last are classed by him as of the Northern or Indo-Aryan style, which, according to his arrangement, preceded the Indo-Saracenic. The temple at Brindâban to which he refers is the one to Gobind Deva erected by the celebrated Mân Sinh of Amber, now Jaipur, who reigned 1592-1615 A.D. The one at Gobardhan is probably the famous temple of Hari Deva, erected during the reign of Akbar by Râja Bhagwân Dâs of Amber. Mr. Fergusson remarks concerning these that they are the only two instances in a Hindu temple, known to exist in the north of India, of a true vault, built with radiating arches, covering what he calls a "porch," but which, according to Mr. Growse, would more properly be described as the nave. But if Mr. Fergusson tells us little, Mr. Growse gives the amplest description of these, as of all the other prominent specimens of architecture that remain in the district. Some of his descriptions will be quoted under the next heading.

Archæology and architecture cover to a great extent the same ground, so that it is almost impossible to treat the one without

Archæology.

entrenching on the domain of the other. Each, however, would best be treated in chronological order, if only we could always be sure of our knowledge regarding that order. Mr. Growse has generally preferred to adhere to the arrangement by locality, which, while getting rid of the difficulty just noticed, ensures an exhaustive treatment. It will suffice here to give a brief summary of the general results of recent research; for without occupying an amount of space, which the circumscribed limits of a gazetteer forbid, a thorough treatment of the subject would be impossible. The reader will understand that for detailed descriptions of individual examples, he must have recourse to Mr. Growse's work, so frequently quoted in these pages, and to General Cunningham's *Archæological Reports* (Vols. I. and III.) In most cases the references to the former have been added in the text.

The single specimen that has come down to us of the pre-Buddhist period has been mentioned under the last heading. Some of the Indo-Scythian or Buddhist antiquities were also there referred to. The most interesting from an archæological point of view of the remains of this period are the inscriptions found on statues, pillars and baso-relievos. Many of these inscriptions have been transcribed and translated [see *Arch. Rep.*, III., 30 *et seqq.*], but Mr. Growse remarks that the translations are for the most part of a tentative character, leaving much room for uncertainty. He tells us that "they are all brief votive records giving only the name of the obscure donor, accompanied by some stereotyped religious formula." Unfortunately, although the dates are indicated by figures, these cannot, owing to a dispute as to the era, be converted with any certainty into dates by the Christian chronology. Three inscriptions have been found bearing the name of Kanishka, a name which appears on his coins in the form Kanerki. Only two of these inscriptions give dates, one 9 and the other 28. There are numerous inscriptions in which the name of his successor Huvishka (on the coins Ooerki) appears, with dates ranging from 33 to 50. Regarding the latter, Mr. Growse notices that the grammatical construction of the words does not necessarily imply that the king was living at the time of the gift referred to in the memorial. Other inscriptions give the name of Huvishka's successor, Vâsu Deva. The difficulty regarding the era has been discussed at great length by Mr. Growse, with the result that "a final solution to the mystery has yet to be sought."

The Jamâlpur mound and its neighbourhood, the Kankâli or Jaini tila and the Katra mound, have given up numerous Buddhist remains. The first of these mounds would seem from the inscriptions to have been occupied by several different monasteries. The most numerous remains were portions of stone railing of the type used to enclose Buddhist shrines and monuments. Three large seated figures of Buddha, and the bases of some thirty large columns, were also found. It was chiefly round the bases of the last that the inscriptions were engraved. A noticeable fragment was a stone hand measuring a foot across the palm, which must, therefore, have belonged to a statue not less than from 20 to 24 feet in height. Most of the sculptures were executed in common red sandstone, and were of inferior workmanship compared with the specimens found elsewhere in the neighbourhood. One of these, a figure rather more than half life size, is described with two lithographed representations in General Cunningham's *Arch. Rep.*, I., 240. He at first inclined to regard this statue as that of a dancing-girl,

but in a later notice (Vol. III., p. 23) remarks upon certain peculiarities, especially the wearing of an additional girdle, such as is worn by men of rank and holy personages, which led him to doubt if that description was correct. Some have supposed that this figure may have been the work of a Greek artist, a supposition which Mr. Growse thinks involves no *historical* difficulty, though he does not himself accept it.

The Kankáli tīla, or mound, lies at the side of the Agra and Dehli road, much nearer the city than the Jamálpur mound. On the summit stands a fragment of the carved Buddhist pillar, venerated at the present day as the supposed image of the goddess Kankáli. In the hill itself were found buried two colossal statues of Buddha, each $7\frac{1}{2}$ feet high. Here was also found the large figure of an elephant, standing on the capital of a pillar, with an inscription, giving the name of King Huvishka, mentioned under the last heading [see *Arch. Rep.*, Vol. III., Plate V.] Many other remains of interest were found, of which the most important have been mentioned by Mr. Growse. The absence of any definite line of foundation suggested the suspicion that the sculptures may have been brought by Muhammadans from various places in the neighbourhood and thrown into a pit at this spot. If this surmise is correct, their presence would be no proof of the existence of any temple or other building on the spot; but, as Mr. Growse remarks, the use to which this mound has of late years been put, namely, to serve as a quarry, may explain the absence of bricks and small blocks of stones; for these, as being more useful for building purposes, would naturally be removed in preference to the cumbrous and broken statues. Mr. Growse throws out the suggestion that here may have stood the Upagupta monastery mentioned by H wen Tshang, which General Cunningham identified with the Yasa Vilāra inside the Katra.

The third principal Buddhist site is in the vicinity of the Katra, not far from the Kankáli tīla. Here, at the back of the temple of Bhuteswar Mahādeva, is a rather high hill, on the top of which stood a Buddhist pillar of extraordinary dimensions. Mr. Growse describes it as "carved in front with a female figure, nearly life-size, bearing an umbrella, and above her head is a grotesque bas-relief representing two monkeys, a bird, and a misshapen human dwarf." [An illustration of it is given in Vol. XLVII. of the Bengal Asiatic Society's Journal.] In a large ruinous tank near the temple, called Balbhadrā kund, some good specimens of the cross-bars of a Buddhist railing formerly existed. These were enriched with various devices [see *Arch. Rep.*, Vol. III., Plate IX.] Five other Buddhist

pillars of elaborate design were discovered. Many of the figures represent natural situations, but some are not very decent [see *Mathurá Memoir*, p. 121].

Among the antiquities may also be mentioned the ruins of the walls of the old city. At the distance of about a mile to the south-west of these is a group known as the Chauwára mounds. In the centre of one of them was found, in 1868, a masonry cell containing a small gold reliquary, the size of a small pill-box. It contained a tooth, which was thrown away as of no value. In another mound was found by General Cunningham, in 1872, a small steatite relic-casket embedded in a mass of unburnt bricks. In this same mound were discovered a colossal figure, of very Egyptian cast of features, with a round hole in the forehead; the lower part of a large seated Buddha, with a Páli inscription bearing the name of Huvishka; and several uprights and cross-bars of Buddhist rails, with a great number of small fragments of male and female figures, &c.

The above does not exhaust the list. Indeed, it is probable that much yet remains to be done in the way of thorough exploration of the mounds with which, as Mr. Growse remarks, all the fields between the large Kankáli and Chauwára mounds are dotted. In one of these the counterpart of Colonel Stacey's so-called Silenus was discovered by Mr. Growse. A most interesting description of this sculpture is given in the *Mathurá Memoir*, and there can be little doubt that the counterpart found by Colonel Stacey had no connection with Silenus. The disposal of most of these antiquities seems rather uncertain. Some are in the local museum and others in that at Allahabad.

Space will not permit of a detailed description here of all the temples, mosques, and other objects of architectural or antiquarian interest that are found in different parts of the district. A list with brief notices of some of the more important is all that can be given, and it has not been possible to adhere to chronological order in naming them.

Besides the objects mentioned above, the following in Muttra itself call for

edition) of the *Mathurá Memoir*. (2) The Jāmi' Masjid or cathedral mosque stands in the very heart of the city. It was erected

(2) Jāmi' Masjid.

by Abd-un-Nabi Khān, the local governor, in 1661, apparently on the ruins of a Hindu temple. It has four lofty minarets, which with other parts of the building were originally covered with bright-coloured plaster mosaics, still preserved on a few panels. On these must have chiefly depended its beauty, as the style of architecture is ungraceful. It was greatly damaged by an earthquake in 1803. Some repairs were made in 1875, by public subscription, under the superintendence of Mr. Growse [see further *Mathurá Memoir*, p. 153]. (3) Siva Tāl, or the tank of Siva, the third member

(3) Siva Tāl.

of what has been called the Hindu Trinity, was, according to the two inscriptions, one in Sanskrit and the other in Persian, that still exist, constructed by order of Rāja Patni Mal of Benares in 1807 A.D. The basin, of great depth, is enclosed by a high wall with corner kiosques, and a small arched doorway in the centre of three of its sides. On the fourth side is the slope for watering cattle, with the two memorial inscriptions placed so as to face each other. Mr. Growse remarks upon this tank that it is the only one of the many in Muttra that can be called a success. The inscriptions are set out at length, and an excellent photograph given of the tank itself, in his *Memoir* (pp. 135-7). In the official list (*Objects of Antiquarian Interest in the North-Western Provinces*) the style of this tank is called "modern eclectic." Outside the enclosure stands a small temple, in the same style, dedicated to Mahādeva (Siva) under the title of Achalesvar.

The four oldest existing temples of Brindāban bear the titles of Gobind Deva, Gōpi-Nāth, Jugal Kishor, and Madan Mohan.

Brindāban : its four temples. They were all commenced at or about the same time, in honor of the visit of Akbar, who in 1573 came with his attendant rājas to interview the goddess Brindā Devi. A marvellous vision that was vouchsafed to him procured his cordial support to the proposition made by the rājas to erect a series of buildings in place of the ancient shrine. These, however, were not respected by Akbar's successors; Aurangzeb especially is credited with having shown his zeal by various acts of desecration in connection with them. Their condition until a few years ago was more or less a ruinous one, but something has been done since towards their repair and partial restoration. The brief description of each in the official list is as follows:—(1) Temple of Gobind Deva : built by Mān Singh, mahārāja of Jaipur, in 1590 A.D., and apparently left unfinished at his death in 1614. Of red sandstone, cruciform, with vaulted roof, the largest and finest of its style. Mr. Fergusson's remark that it is

"one of the most interesting and elegant temples in India," is quoted [*vide supra*, p. 89.] Desecrated by Aurangzeb; restored by the British Government, 1873-76, at a cost of Rs. 38,365 (including a grant of Rs. 5,000 from the mahārāja of Jaipur). (2) Temple of Gopī-Nāth: is in a very ruinous condition, but has a singularly rich and boldly-moulded plinth, with other characteristic features that make it well worthy of preservation. (3) Temple of Jugal-Kishor: what remains is in fair order. (4) Temple of Madan Mohan: on a smaller scale than the temple of Gobind Deva, specially interesting on account of its three towers, a very elaborate work, and for the most part in good preservation. All four are described as in the "early eclectic style," and the date is given as 1590 A.D. All are built of red sandstone and decorated with sculpture. The temple of Jugal Kishor is alone said to be disused.

Besides the above Brindāban possesses the following, which, although a little later, may, from an architectural point of view, rank in the same series as those: (5) Temple of Rādhā Ballabh; the last example, according to Mr. Growse, of the early eclectic style, and ascribed in the official list to the year 1628 A.D. The ground-plan is the same as in the temple of Hari Deva at Gobardhan [see *Mathurā Memoir*, p. 256]. The nave has an eastern façade 34 feet broad, in three stages, the upper and lower Hindu, and the one between them purely Muhammadan in character. The interior is a fine vaulted hall (63 feet × 20 feet) with a double tier of seven openings, north and south, those in the lower range having architraves and Hindu brackets, the upper being Muhammadan arches. Some of the stone panels of the ceiling have fallen, but the outer roof is at present perfect. Some trees, however, have taken root in the crevices between the slabs, and unless carefully removed, must eventually destroy it. A thorough repair of roof, eaves, and east front, writes Mr. Growse, would cost Rs. 4,500, and, as a typical example of architecture, the building is well worthy of such an outlay.

There are in Brindāban other ancient temples, but they are small and possess no special architectural merit. The modern temples will be mentioned in the separate article [see BRINDĀBAN].

At Gobardhan is the temple of Hari Deva; in the same style as the Brindāban series, but a few years earlier in date, *viz.*, about 1560 A.D. The roof of the nave, which was a near approach to a vault, and the most interesting feature in the building, was perfect until 1872, when it began to fall in and was soon afterwards entirely demolished by a Bania, who had volunteered to repair the temple at his own cost. The cenotaph of mahārāja Sūraj Mal, the founder of the Bhartpur

Gobardhan.

dynasty, erected on the beautiful artificial lake called the Kusum-Sarovar, by his son Jawâhir Sinh, may, although it dates only from the latter part of the last century, claim notice here.

The only other place where objects of antiquarian interest are, according to the official list, met with is Mahâban. Only one such object is mentioned in the list, the Chhatthi Pâlna, Assi Khamba, or Nanda's Palace. All three names are given to it, but that of Assi Khamba, or the eighty pillars, is the commonest. The following extracts from Mr. Growse's description [*Mathurâ Memoir*, pp. 274-8] may be quoted :—

"In its present form, it was erected by the Mussammanians, in the time of Aurangzeb, out of older materials, to serve as a mosque, and as it now stands, it is divided by five rows of sixteen pillars each, into four aisles, or rather into a centre and two narrower side aisles, with one broad outer cloister. The external pillars of this outer cloister are each of one massive shaft, cut into many narrow facets, with two horizontal bands of carving : the capitals are decorated either with grotesque heads or the usual four squat figures. The pillars of the inner aisles vary much in design, some being exceedingly plain and others as richly ornamented with profuse and often graceful arabesques. Three of the more elaborate are called respectively the Satya, Treta and Dwâpar Yug ; while the name of the Kali Yug is given to another somewhat plainer. All these interior pillars, however, agree in consisting as it were of two short columns set one upon the other. The style is precisely similar to that of the Hindu colonnades by the Kuth Minâr at Delhi ; and both works may reasonably be referred to about the same age. As it is probable that the latter were not built in the years immediately preceding the fall of Delhi in 1194, so also it would seem that the columns at Mahâban must have been sculptured before the assault of Mahmûd in 1017 ; for after that date the place was too insignificant to be selected as the site of any elaborate edifice.

"On a drum of one of the pillars is an inscription—now upside down—which I read as *Râm dâs has khawr kam*, meaning, it would seem, 'column No. 91, the gift of Râm Dâs.' This would rather lead to the supposition that the pillars were all originally of one set and belonged to a single building, though it is quite possible that they may be the wreck of several different temples, all of which were overthrown by Mahmûd of Ghazni, when he captured the fort in 1017. In either case there can be no question as to the Buddhist character of the building, or buildings, for I found set into the wall a small seated figure of Buddha, as also a cross-bar and a large upright of a Buddhist railing. The latter is ornamented with foliated circular disks, on one of which is represented a head with a most enormous chignon, and—what is unusual—has four oval sockets for cross-bars on either side instead of three. These columns and other fragments had probably been lying about for centuries till the Muhammadans, in the reign of Aurangzeb, after demolishing a modern Hindu temple, roughly put them together and set them up on its site as a makeshift for a mosque.

"Mothers come here for their purification on the sixth day after childbirth—*chhatthi pûja*—whence the building is popularly known as the Chhatthi Pâlna, and it is visited by enormous crowds of people for several days about the anniversary of Krishna's birth in the month of Bhâdôn. A representation of the infant god's cradle (*pâlna*) is displayed to view, with his foster-mother's churn and other domestic articles."

The popular idea that the existing building was in earlier times connected with Krishna, having been, according to local tradition, Nanda and Jasodá's dwelling-house, is by Mr. Growse pronounced to be entirely fictitious. The site, however, apart from the fabric, has probably, he thinks, been associated with Hindu worship from very remote antiquity. Other fragments of Buddhist character have been occasionally found within the precincts of the fort at Gobardhan, but none has been preserved for examination.

Not mentioned in the official list, but described by Mr. Growse, is a building at Noh-jhil, of interest from its possessing the same feature, broken pillars, as is found in the Assi Khamba just mentioned. The building is a Muhammadan dargáh, constructed out of the wreck of a Hindu temple. The pillars, twenty in number, are exceptional in two respects : first, as being all of uniform design, an anomaly in Hindu architecture ; secondly, as being, though of fair height, each cut out of a single block of stone. The shaft of each pillar is plain, except for four deep, scroll-shaped notches half-way between the base and capital. The result is to make each pillar work as if it were in two pieces, one placed above the other. Mr. Growse explains this peculiar method as a survival of an older one, in which, large blocks not being procurable, the column had been in fact constructed of two pieces [*vide supra*, p. 87].

Nothing has been said in the above account of the forts. That at Muttra itself, known popularly as *Káns-ká-kila'*, but rebuilt in historical times by Rája Mán Singh of Jaipur, the chief of Akbar's Hindu courtiers, has disappeared with the exception of the massive sub-structure. At Sonkh, in parganah Muttra, some crumbling walls and bastions of an old fort remain ; it was built by a Ját named Hati Singh in the time of Súraj Mal of Bharatpur. Near Sháhpur, in parganah Kosi, are (in a hamlet called Chauki) the remains of a fort erected by Nawáb Ashraf Khán and Árif Khán or by an earlier personage, Ágha Haidar, who was a local governor under the Marhattas. At Shergarh in parganah Ohhata is a fort, now in ruins, built by the Emperor Sher Sháh. The Jumna, which once washed the fort of its walls, is now more than a mile from it. At Aríng, in parganah Muttra, are the ruins of a fort of the last century. At Mát is an old mud fort ; at Noh-jhil, in the Mát parganah, are the ruins of an extensive brick fort. At Sa'dabad the tahsili occupies the site of a fort of the Gosáin Himmat Bahádúr's, and at Sahpau, in the same parganah, the site of another is pointed out. At Mahában is the site of Rána Katehra's fort with a history [see *Mathurá Memoir*, p. 273]. None of these, however, is of any special interest.

For an account of the various native preparations of food-grains reference may be made to the AGRA and MIRZAPUR notices. The total weight of food-grains produced in the district is by Mr. Buck fixed at 230,000 tons. Allowing the population a diet of 18oz. per head daily, he reckons that 170,000 tons are consumed in the district itself, and that a balance of 60,000 tons is left for store or export. The allowance of 18oz. may, however, be thought too low [see *Gaz.*, VII., 495].

Of customs special to this district there is little to note, and of customs common to it and other districts in the provinces we need here take no account. The observances regarding marriage, divorce, exclusion from and re-admissions to caste, present minor differences as between different sections of the Hindu community, but none of sufficient importance to detain us, and it cannot be said of these differences that they are certainly local. Reforms in such matters as child marriages are as yet, we are officially told, unknown in Muttra. The peculiar customs of Ahirs, Gijars, and Jâts as regards marriage with an elder brother's widow, and of the last named as regards concubinage and the treatment of the off-spring of such alliances, have been already mentioned in the account of castes [*vide supra*, pp. 76, 81]. The only tribunal for deciding questions among Hindus regarding marriage, divorce, and *status* generally is, here as elsewhere, the common council of the brotherhood, called a *panchayat*. It would seem that, in the case at least of Sudras, all decisions of this tribunal regarding questions of marriage and divorce between members of the brotherhood are binding on the parties, and must be recognized as binding on them by the ordinary courts of law. There is no such thing as a matrimonial court of law for Hindus, and when questions regarding marriage or divorce are incidentally raised, as they often are in the civil and criminal courts, the only basis of decision at present is Hindu law modified by caste usage.

It is usual to speak of Muttra as the head-quarters of Vishnuism, more especially under the form of Krishna worship, and of Benares as the centre of Sivaism. To this, as a general statement, exception could hardly be taken, unless it be held to involve a classification of all Hindus into two main orders, as followers of Vishnu and of Siva respectively. More than half a century ago the late Professor Wilson found himself confronted with the difficulty of satisfactorily classifying Hindus by sects, and it can hardly be said that that difficulty has even yet been overcome. A recent writer [A. Barth's *Religions of India*, p. 254] apparently abandons as hopeless any attempt at an exhaustive enumeration of the Hindu systems. He

Religion: Brahmanism.

writes: "Alongside of the great sectarian divinities and their personal surroundings, their wives, fathers, mothers, sons, brothers, and servants, we meet with the ancient gods of Brahmanism, Agni, Indra, Varuna, &c., powers that have fallen mostly into decay, but which survive in what remains of the ancient ritual, especially in the domestic ceremonies. The heroes of the epic legend, such as Hanumán, the monkey associated with Ráma, or the five sons of Pándu and their common spouse Draupadi, whose worship is highly popular throughout the Peninsula, are found here again associated with impersonations of a very different origin, such as the Ganga (the Ganges), the sun, moon and planets. Besides these, each several district, especially in the Dravidian South, has its own local deities, which have been identified in the main with the general types of Hindúism, but rarely to the extent of being absolutely confounded with them. Finally, the *personnel* literally baffles calculation; when we add to it, as we must, as crowd of powers without names, of subordinate rank in the literature, but which at times play a prominent part in the prepossessions of the people.....There is no mountain, river, rock, cave, tree of any note, which has not its *genius loci*, no village especially which has not its *gráma devatá*, which, even when it is one of the great pantheon, nevertheless, appears to the popular conscience distinct from the same divinity as worshipped elsewhere. Almost all these forms of worship are more or less independent of one another."

It is necessary also, he remarks, to bear in mind that "although every Hindu has his own predilections among the many ways that offer of securing the favour of Heaven, yet, unless it be from superior education or connection with a rigid sect, he is indifferent to none of those that are within his reach." The distinction here made between the ordinary Hindu and the member of a rigid sect is one of considerable importance. It is only the former that is usually tolerant and ready to give a willing ear to any new doctrine, especially if it comes recommended by any kind of miracle. Professor Wilson took pains to impress this distinction upon his readers. "The worshippers of Vishnu, Siva, and Sakti," he wrote [*Essays on the Religious Sects of the Hindus*, I., 30,] "who are the objects of the following description, are not to be confounded with the orthodox adorers of those divinities. Few Brahmans, if they have any religion at all, will acknowledge themselves to belong to any of the popular divisions of the Hindu faith, although, as a matter of simple preference, they more especially worship some individual deity as their chosen or *Ishta Devatá*."

So much by way of introduction to the special subject of this heading, the so-called Vaishnava, or Vishnuite, sects of Muttra. It will be gathered from what has gone before that no

hard-and-fast lines of demarcation into sects can, as regards the general Hindu population, be laid down. But the avowed members of the sects are generally distinguished; plainly enough, by certain outward signs, as well as by certain dogmas peculiar to the several orders; and it is notorious, despite the absence of a religious census directed to ascertain the fact, that the professed votaries of Vishnu are in a large majority in this district. Indeed, Mr. Growse remarks concerning the reformed Vaishnava sects that "at the present day they constitute the more influential, and it may be even numerically the larger, half of the Hindu population," a remark which he evidently intended to apply to all India and not specially to the Muttra district. The Sanskrit name for a sect; *Sampradāya*, means etymologically "something handed down by tradition," and refers to the established doctrine transmitted by one teacher to another. The term happily expresses the main feature in all the sects, which is that some more or less deified teacher of a by-gone period is the source to which are referred all the doctrines held by the present members, either as originally enunciated by him or as capable of being directly deduced from his teaching. For the early history of the two great sectarian religions, Sivaism and Vishnuism, we have few materials. Vishnuism has been traced through Buddhism up to Tree and Serpent worship, and has been supposed to be of Scythian origin. Whether, on the other hand, Sivaism is of non-Aryan, or, to be more precise, of Dravidian origin, or is the direct descendant of the Vedic god Rudra's worship; has been warmly disputed. The internal chronology of the sects is generally very vague, and their positive history hardly commences till we come upon the heads of the schools of the twelfth century, or, for the Sivaism of Kashmir, a little earlier, viz., the ninth [*vide Barth's Religions of India*, p. 190].

The general teachers of the reformed Vaishnava creed at first confined their labours to the south of India and to Eastern Bengal, where no inveterate antipathy between the Aryan peoples and the followers of the Prophet had been engendered, and where, consequently, the idea of a common religion, to combine Hinduism and Islām, seemed one not incapable of attainment. The conditions which favoured their rise have been compared by Mr. Growse to those under which the Reformation in Europe came into existence. "So far as it is possible," he writes, "to compare natural with revealed religion, the course of Hinduism and the course of Christianity have been identical in character; both were subjected to a violent disruption; which occurred in the two quarters of the globe nearly simultaneously, and which is still attested by the multitude of uncouth fragments into which the ancient edifice was disintegrated as it fell" [*Mathurā Memoir*, p. 190]. In Europe the disturbing element was the revival

of ancient literature and the study of forgotten systems of philosophy ; in India it was the Muhammadan invasions, bringing with it new races and new modes of thought. Leaving the reader to follow in the work from which it has been taken the analogy here suggested, we must be content with giving an enumeration of the chief reformed sects and a brief note regarding the peculiar doctrines or practices of each. Both the list and the notes are extracted from Mr. Growse's exhaustive and scholarly descriptions, to which, for further information and for examples of the religious text-books used by such sect, the reader must be once more referred.

The four main divisions of the reformed Vaishnavas are the Sri Vaishnava, the Nimbárak Vaishnava, the Madhva Vaishnava, and the Vishnu Swámi. The last of these is virtually extinct, but it has a successor in the adherents of the Gokul Gosáin Vallabhá-chárya, who remodelled the Vishnu Swámi doctrines. These adherents are ordinarily styled either Vallabhácháryas or Gokulastha Gosáins.

The Sri Vaishnava is the oldest and most reputable of the four reformed sects. Its doctrines and practices conform to those of (1) The Sri Vaishnava. the great teacher Rámanúja, who lived in the 11th or 12th century A.D., but who never left the Dakhan, where he was the founder, it is said, of 700 monasteries, including the famous ones at Kánci and Sri Ranga. Sanskrit treatises of his own composition are the standard authorities of his theology, and the more popular treatises are all written in the vernaculars of the south. Even in Brindában the great temple of Rang-Ji, built for the sect by zealous converts from Jainism, the two brothers of the well-known Muttra Seth, Lakhmi Chand, is attended only by foreigners; and the rites and ceremonies are neither understood nor cared for by the neighbouring population. Their chief dogma, called *Visishtádvaita*, is the assertion that Vishnu, the one supreme God, though invisible as cause, is visible as effect in a secondary form in the material creation. In refusing recognition to Rádha as an object of worship they differ from the majority at Brindában, but are in complete accord with all the older authorities, according to which—when she is mentioned at all—Rádha figures as Krishna's mistress, his wife being Rukmini. Their formula of initiation (*mantra*) is *Om Rámáya namah*—"Om, reverence to Ráma."

Two sub-divisions, the Tenkalai and Vadakalai. The sect is sub-divided into (a) the Tenkalai and (b) the Vadakalai, the members of which differ somewhat in doctrine, but chiefly in the mode of making the sectarial mark on the forehead. For a full account of both points of difference see Mr. Growse's *Mathurá*, pp. 193-94.

The Nimbárák Vaishnavas explain their peculiar designation—*nimbárák*

(2) The Nimbárák Vaishnavas. meaning “the sun in a *ním* tree”—by a legend which represents the sun god as descending upon a *ním* tree to oblige the founder of the sect, Bháskaráchárya, who had invited a holy man to a repast, but had delayed until after sunset the ceremony of receiving his guest. As the rules of his order forbade the holy man from eating except in the day-time, Bháskaráchárya begged the sun-god to appear and shine upon the *ním* tree under which the holy man was to take his food. In consequence of this special manifestation of divine favour, the founder's name became Nimbarka or Nimbaditya. His special tenets are little known, but his followers are represented as “pious, simple-minded men, leading chaste and studious lives.” They hold the doctrine of salvation by faith, and another—equally striking in its divergence from ordinary Hindu sentiment—that of continuous conscious individual existence after death. Their theory of the future state of the righteous is identical with that held by Christian theologians. The great point on which they insist is that “all visible creation is a shadow of the Creator and is, therefore, true in a measure, though void of all substantial and independent existence.” This is practically the Idealism of European philosophy. One of the oldest shrines of this sect is on the Dhruva hill at Muttra.

The Madhva Vaishnavas are so named from their founder, Madhváchárya,

(3) The Madhva Vaishnavas. a native of Southern India, born in the year 1199 A.D. A temple there at a place called Udipi is still pointed out as his residence. He is credited with having at the age of nine years composed the *Bhāṣha*, or commentary on the *Bhagavad Gita*, which constitutes the sacred scriptures of the sect. The distinctive doctrine of the order is the assertion of an essential Duality (*Dvaita*) between the principles of life (*Jivátma*) and the Supreme Being (*Paramátma*). The followers of Madhváchárya are outwardly distinguished by two perpendicular white lines drawn down the forehead and joining at the root of the nose, with a straight black streak between, terminating in a round mark made with turmeric. They are a scattered community, with no temples of any note.

As mentioned above, the Vallabhácháryas, or, as they are sometimes called from the town where, since 1565, their chief seat has been, the Gokulastha Gosáúns, are the modern representatives of the fourth reformed Vaishnava sect, the Vishnu Swámí. The founder, Vallabháchárya, was born in the year 1479 A.D., at Champaranya, near Benares. His parents, Talinga Brahmans, had at the time of his birth arrived there

(4) The Vallabhácháryas.

on their way from the south to visit the great northern place of pilgrimage. Mr. Growse gives an interesting account of the reformer's birth, subsequent career, and doctrines. The text and translation of the *Siddhānta Rahasya*, the inspired work in which this dogma is expressed, are set out at length [see *Mathurā Memoir*, pp. 283-86]. It enumerates the five classes of sins, original, accidental, ceremonial (or social), sins of abetment, and sins sensual, and lays down that when there is no union with the Creator, there is no putting away of sin. Things not consecrated are to be abstained from, but after consecration they may be used. As dirty water flowing into the Ganges becomes assimilated with the sacred stream, so vile humanity becomes purified by union with God. The practice of the sect has been modelled strictly in accordance with these instructions. A child is admitted to the sect by the Gosāins putting on its neck a string of beads and repeating a formula, called the *Ashtākṣhar mantra*, but this is followed at the age of puberty by a ceremony resembling that of confirmation among Christians of the Established Church, accompanied by a dedication to the deity of *tan, man, dhan*, or body, soul, and substance. But the deity to whom the dedication is solemnly made is, at least by the modern representatives of the sect, identified with the Gosāin who initiates the new member. The result of this doctrine is that a door is opened to the grossest immorality. No defect, moral or intellectual, can impair the hereditary claim that the Gosāin has upon the adoration of his following. Thus, we read [*Mathurā Memoir*, p. 288]: "By the act of dedication a man submits to the pleasure of the Gosāin, as God's representative, not only the first-fruits of his wealth, but also the virginity of his daughter or his newly-wedded wife; while the doctrine of the *Brahma Sambandh* is explained to mean that such adulterous connection is the same as ecstatic union with the God, and the most meritorious act of devotion that can be performed. This glorification of immorality forms the only point in a large proportion of the stories in the *Chaurāsi Vārtā*, or 'Accounts of Vallabhāchārya's 84 great proselytes.' Mr. Growse has given the text of one of the most extravagant of these stories, and, notwithstanding an attempt made by Professor Wilson to interpret the doctrine of "the union of the divinity with living creatures," as the declaration of a philosophical dogma that life and spirit are identical, the revolting character of that doctrine as held by the Vallabhāchāryas seems fully proved. After this it is satisfactory to learn that, however reprehensible may be the inner life of the Gosāins, they do not, at least at Gokul, obtrude their practices on the public, and open scandal is avoided. Moreover, the present head of the community, Gosāin Parushottam Lāl, is honourably mentioned for liberality and enlightenment.

There are three schools of Vaishnavas of more modern origin—the Bengali or Gauṛiya; the Rādhā Vallabhis; and the disciples of Swāmi Hari Dās. The first of these orders was founded by Chaitanya, born at Nadiya in Bengal in 1485 A.D., who, after spending six years in pilgrimages between Muttā and Jagannāth, finally settled down at Jagannāth, and died there in 1527 A.D. He met his death, it is said, by drowning in the sea, into which he had walked in an ecstasy, mistaking it for the shallow waters of the Jumna, where he saw, in a vision, Krishna sporting with the Gopīs. Six of his followers settled at Brindāban, and the recognised leaders were Rūpa and Sanātana, the reputed authors of the *Mathurā Mahātma*. The special tenet of the Bengali Vaishnavas is the all-sufficiency of faith in the divine Krishna, which is adequately expressed by the mere repetition of his name. Their sectarian mark closely resembles that of the sect last mentioned. The use of a rosary of 108 beads made of wood of the sacred *tulsi* is another characteristic.

(6) Chaitanya's followers. The founder of the Rādhā Vallabhis was Hari Vans, the son of Vyāsa, a Gaur Brahman of Deoban in the Sahāranpur district. Vyāsa gave him the name Hari Vans, or Hari's issue, in gratitude to the god that had granted him in his old age the boon of male offspring. This son was born at Bād, a small village near Muttā, in 1559 A.D. The sect takes its name from an image of Krishna, styled Rādhā Vallabh, which was given to Hari Vans by a Brahman when the former was travelling to Brindāban. This image was by him set up in a temple built between the Jugal and Koliya ghāts on the Jumna's bank. The devotion of the founder took the complexion of his strong natural passions and was all directed to Rādhā, Krishna's fabled mistress, whom he deified as the goddess of lust. He was originally, we are told, an ascetic of the Madhvāchārya sect, but finding it convenient to exchange his celibacy for a married life, took to wife two daughters of a Brahman, the same that had given him the image of Krishna. By these wives he had two sons, Brajchand and Krishnachand, of whom the latter built a temple to Rādhā Mohan, which is still in the possession of his descendants. The former was the ancestor of the present Gosāins of the temple of Rādhā Vallabh, the chief shrine of the sect. On one of the pillars of the temple is an inscription that gives the date 1683 *sambat* (1626 A.D.)

Hari Vans himself composed two poems, the *Chaurāsi Pada*, or "84 stanzas," in Hindi, and the *Rādhā Sudhā Nidhi*, or "Treasury of Rādhā's Delights," in Sanskrit. Of the latter Mr. Growse has given [*Memoir*, pp. 203-8] the text of 26 out of its 170 couplets, with an English translation. As a whole,

the work is described as "a piece of highly impassioned erotic verse," and so regarded may deserve to be characterized as "a spirited and poetic composition." A single couplet will suffice as an example ; if the mystic meaning is regarded it may remind the reader of Háfiz ; but if the words only are considered, they seem to invite comparison rather with some passages of English poets of the Fleshly school :

"When, O daughter of Vrisha-bhānu, shall I experience the conceit induced by excess of voluptuous dalliance, I, your handmaid, charged with the message, 'Come and enjoy Krishna's dainties,' and answered with a smile, 'Only stay, friend, till night comes?'"

The Hindi poem (*Chanrásī Pada*) is much more popular, and Mr. Growse remarks that most of the Gosáins know by heart some at least of its stanzas. He has given the text and a translation of twelve of them. It will suffice to quote his criticism ; "If ever," writes Mr. Growse, "the language of the brothel was borrowed for temple use, it has been so here." He adds, however, that "the Gosáins, who accept as their Gospel these sensuous ravings of a morbid imagination, are for the most part highly respectable married men, who contrast rather favourably, both in sobriety of life and intellectual acquirements, with the professors of rival sects that are based on more reputable authorities."

Hari Vans is better known popularly by the title Hit Jí, which he assumed to indicate his passionate love for Rádha, his divine mistress. His most famous disciple, Vyás Jí of Orchha, marked his renunciation of caste by taking food from a scavenger's hand. Another, Dhruva Dás, is known as the author of 42 poems, the names of which, with those composed by some other disciples, are given by Mr. Growse [*Memoir*, p. 216].

The followers of Swámi Hari Dás are a prosperous sect. The Gosáins (7) The followers of or priests and their families number about 500, and Swámi Hari Dás. own one of the most conspicuous of the modern temples at Brindában. It is dedicated to Krishna under his title of Bihári Jí, popularly Bánke Bihári. This temple has lately been rebuilt at a cost of Rs. 70,000, a sum that was contributed in the course of 13 years by their clients. It is apparently the only temple in all India in the exclusive possession of this sect. The present Gosáins trace their descent from two nephews of the founder. They are divided into two families, which are constantly quarrelling. Few of them, according to Mr. Growse, have any claim to respect on account either of learning or of good morals. The reigns of Akbar and Jahángir, or the end of the 16th and beginning of the 17th centuries, were apparently the period when Hari Dás flourished ; but it is doubtful whether, as supposed by the

late Professor Wilson, there was any personal intercourse between Hari Dás and Chaitanya, although Hari Dás is described as the latter's disciple. Hari Dás has himself left only two short poems, the *Sádháran Siddhánt* and *Ras ke Pada* [see the text and a translation of the first in *Mathurá Memoir*; pp. 222-30]; but his successors have produced voluminous writings. The doctrines of the founder are substantially identical with the ordinary teaching of the other Vaishnava sects. For an account of many marvellous events in that founder's life the reader must be referred to Mr. Growse's pages [*Memoir*, pp. 219-20].

Other modern sects of limited importance are the Malúkdásís, who have a temple to Rámjī, whom, rather than Krishna, they specially worship; and the Prán-náthís, or followers of Prán-náth, a Kshatri by caste, who lived at the beginning of the

Other minor sects : (8) Malúkdásís ; (9) Prán-náthís, 18th century, and was under the special patronage of Chhattra Sál, the famous rája of Panna, in Bundelkhand. The followers of Prán-náth are sometimes called Dhámís, from Dhám, a name of the Supreme Spirit (*Paramátmá*) and are not idolators. Their only visible object of religious veneration is a copy of the works of their founder. These are fourteen in number, of which Mr. Growse gives the names, with a transcript and translation of one of them [*Mathurá Memoir*, pp. 231-38]. The main doctrine laid down by Prán-náth was that "any one religion is as good as another," and this led to a later development, which declared that "all religions are equally false." The author of the last doctrine, Bakhtáwar, is credited by Professor Wilson with having founded a sect, the Sunya-vádis, but Mr. Growse would not dignify his following with the name of a distinct sect, classing them rather with the isolated atheists who have appeared in every age of Hindúism.

The temples of these sects have some of them been noticed in the account of archæology, and the remaining ones of importance will be described in the town notices at the end of this Memoir (see especially BRINDÁBAN and GORUL).

Of the Saiva sects that have not been described in previous volumes some account will be given in BENARES. There are no available sources of special information regarding those represented in this district. The absence of any record of the sect at the recent census, so far as regards this district, has already been noticed. In the vernacular lists they are all entered under such general titles as Jogi, Bairági, &c.

Of the Muhammadan religion sufficient has been written in the MORAD-ABAD notice, and we pass on, therefore, to the Christian religion, or rather to the missions in connection therewith that have been established in the district. The Revd. P. M. Zenker, of

Agra and Muttra, has kindly furnished the following account of the Church Missionary Society's branch at Muttra :—

“ The mission, which up to date is but a small one, was started by the Church Missionary Society. Revd. H. W. Shackell, of Agra, about 1860. It has, up to recent times, always been a kind of out-station either of the Agra or the Aligarh mission of the Church Missionary Society. With the beginning of this year (1882) the committee of the Church Missionary Society, however, introduced a change. Being desirous to take up the work of evangelization more vigorously, they raised Muttra to an independent mission station and made it over to my charge, directing me to reside at Muttra as soon as suitable accommodation could be found. The Church Missionary Society possessed a small plot of ground in the Muttra cantonment, not far from the English and Roman Catholic Churches. On this ground a small bungalow has been erected which serves the purposes of chapel and school. The school in Muttra, which seems to have been opened almost from the time the mission was started, is a small anglo-vernacular one. Urdu and Hindi, as well as an elementary knowledge of English, are taught. It has one Christian master and the number of boys attending it amounts to 18. At Muttra the post of head catechist is at present vacant ; of other agents there are a Christian school-master and a colporteur of the North India Bible Society. At Brindāban there are stationed four evangelists and two Bible-women. The number of Christians connected with the Church Missionary Society at Muttra stands at present (August, 1882) as follows: adults 36, children 20. Since the opening of the Muttra Church Missionary Society Mission, 31 adults and 64 children have been baptized.”

We are indebted to Mr. John Ewen, of Muttra, for the following account of the Baptist Mission : “ In the official ‘ History of the Baptist Missions in India ’ no account is given of the origin of the Muttra branch. It must, however, have been commenced some years prior to 1827, as under the heading Muttra the following brief notice is given :—

“ R. Richards ; native preacher, Rām Dās. In 1827 the church consisted of seven members, of whom five were natives. The labours of the pastor were considerably diversified, and his house was the resort of many inquirers, besides the poor and sick to whom he was in the habit of affording aid. At the close of 1828 he returned to the communion of the Episcopal Church, and Rām Dās was sent to Benares.”

“ It was not re-occupied till 1842. Land was then secured at Bhūtesvar [a suburb of the city of Muttra, deriving its name from a small temple situated about a quarter of a mile from the Dig gate], premises erected, and a Christian

village built. It appears to have enjoyed considerable prosperity till the Mutiny broke out, when it shared the fate of everything English and Christian. In 1857 the mutineers fired the bungalow and razed the village. They have never been re-built, nor since that year has the mission been systematically worked. The general committee have just (August, 1882) announced their intention of abandoning it entirely."

The usual classes of Government schools exist in the district, and the statistics for the year 1880-81, both of these and of the non-Government ones, may be conveniently shown, as in former notices, in tabular form, thus:—

Class of school.		Number of schools.	Number of scholars.			Average daily attendance.	Cost per head.	Expenditure borne by the State.	Total charges.
			Hindus.	Musalmán.	Others.				
Government and municipal.	Zila (high) ...	1	226	18	...	175	Rs. a. p. 42 7 10	Rs. 6,007	Rs. 7 459
	Tahsili and parganah, ...	8	554	51	...	513	4 12 10	2,26	2,466
	Halkabandi ...	122	4,020	163	...	3,369	4 1 1	13,711	13,711
	Government girls' ...	5	128	2	...	99	4 0 9	402	402
	Municipal boys' ...	5	196	8	...	171	9 2 9	...	1,575
Aided by Government.	Boys' ...	...	...	...	...	...	...	...	...
	Girls' ...	...	...	...	...	...	...	...	...
Unaided	Missionary and indigenous..	69	1,048	115	2	1,165	2 11 1	...	8,137
Total		210	6,172	357	2	5,493	5 3 8	22,386	28,750

The *zila* or high school is at Muttra itself. In the English department there were, in the year 1880-81, 154 scholars, of whom 136 learnt also Urdu or Hindi, and 18 Persian. The seven tahsili schools were at Aring, Farah, Brindaban, Kosi, Chhāta, Mahāban and Sādabad, and the parganah school at Sādabad. The higher classes in these and in the village (*halkabandi*) schools are the middle schools referred to in the annual reports of the Department of Public Instruction, and the primary schools are the lower classes in both town and village schools. This double classification according to locality and status requires to be borne in mind in any reference to the number of schools in a district. The total number of Government schools, not counting separate departments of the same institution as distinct schools; was, in 1880-81, 136; there were, besides, 5 municipal schools and 69 missionary and indigenous

institutions. It need scarcely be added that the number constantly varies, but less in the actual number of schools classified by locality, as in the number of so-called middle, upper primary, and lower primary schools. The proportion of Hindus to Musalmáns under instruction in the Government schools was almost as 20 to 1. As illustrating the condition of things educational in Muttra Mr. Growse's remarks, written in 1873-74, are of interest:—

“The village *halkabandi* schools are steadily improving. The progress no doubt is very gradual, and until the whole character of the district is radically changed, will never, I fear, advance very far. In my first report for the year 1870-71 I expressed the surprise that I felt on finding the most classic land of Hinduism such a veritable *Bœotia*. A large proportion of the village schools had (so far as I could judge) a purely nominal existence, and it was only in the two common place and uncharacteristic parganas of Sádabad and Jalesar that they were at all on a par with the neighbouring districts. The reason is not far to seek; in all holy places secular learning is somewhat at a discount, and though Benares is esteemed equally sacred, the reputation for sanctity attaches only to the city itself, whereas five out of the six Muttra parganas all go to make up the one great *tirth* of the Braj-mandal. Again, the followers of Sîva at Benares recognise the religious merit of theological study, while the Vaishnavas of Muttra rely entirely on simple and (it may be) unintelligent *bhakti* or faith; and as I have shown at length in my District Memoir, the one sect which especially took birth here is based on the degrading principle that sensual enjoyment is the highest form of divine service. Thus the most influential leaders of the people make no pretension to advanced scholarship, while the swarms of priests and devotees of a lower class who are supported by the endowments of the innumerable temples, are as utterly illiterate as the mendicant orders of all religions think it no shame to be. In my report, though I did not feel especially concerned to dwell upon the fact, I incidentally refer to the cicerones of Brindában and the Chaubes of Muttra as most hopeless classes to deal with. When we get to the more remote parts of the district, such as the old pargana of Noh-jhil, the blight of superstition has a less deadening influence; but we are confronted by the new difficulty arising from the peculiarities of race, for there the population are all but exclusively Jāts, who, with many fine points in their character, have always been notorious for their aversion to all sedentary occupations. Thus, as long as Muttra continues to be itself its educational standard, it may be feared, it will never be a high one.”

To this may be added the following extract from a recent report (1881-82) of the Secretary (Mr. Cruickshank) to the local committee:—“Brahman and Bania children reap most benefit from the Government schools. Káyaths and Muhammadans, too, are well represented. Chamárs have not a single boy at school, so there is a large field for the new district committee to cover in the matter of extending rudimentary education downwards.”

The cost of primary education in Muttra is slightly lower than in the provinces generally. The provincial average cost for the year 1880-81 of each pupil was: in boys' vernacular (primary) schools Rs. 4-4-4, in girls' vernacular (primary) schools Rs. 5-11-11. How these figures compare with the cost in European countries has been shown elsewhere [*vide* Gaz., VII. (FARUKHABAD), p. 84; IX. (SHAHJAHANPUR), p. 97]. Reference to the small proportion of

the population that can read and write, as shown by the census statistics, has already been made [*supra*, p. 62].

It may not be without interest to turn from this brief notice of the present History of education state of education in the district to the record of its in Muttra. condition at earlier periods of British rule. It was not until about the year 1847 that the attention of Government was specially directed to this subject. In that year an inquiry was set on foot to discover the exact provisions made for the educational wants of the people, and the results, as regards this district [taken from the memoir compiled by Mr. Thornton, p. 56], seem to have been as follows:—

Number of schools in 1847.							Number of scholars in 1847.				
Sanskrit.	Sanskrit and Hindi.	Hindi.	Arabic.	Arabic and Persian.	Persian.	Total.	Sanskrit.	Hindi.	Arabic.	Persian.	Total.
31	38	81	2	8	51	211	549	1,441	32	476	2,498

It will of course be understood that there were no Government schools in 1847, nor indeed for some years afterwards, those referred to in the above statement being all of the class now styled indigenous. Of the kind of instruction afforded by these schools no information is given beyond the statement that "the books read in Persian and Hindi were of the kind noticed in the district schools generally." These schools were usually held in the verandah of the principal supporter's house or under some shady tree. The teachers were chiefly Brahmans, but 11 Káyasths, 2 Bairágis, 1 Bania, and 1 Ját figure amongst them in the report. Fourteen were said to teach for no pecuniary return, but with two exceptions the rest were remunerated by periodical payments and by presents of money or grain.

It is clear that a great advance was made when Muttra was chosen, in 1854, as one of the eight experimental districts placed by Mr. Thomason under a Visitor-General of Schools (Mr. H. S. Reid). It had the honor of being the first district in which Government village (*halkābandī*) schools were opened. These were started in the parganah of Kosi by Mīr Imdād 'Alī, then tahsildār, under Mr. Reid's orders. Nine tahsili schools had been opened somewhat earlier, in 1850, but the zila school was not established until 1867. In 1868, during the enthusiasm for female education that then prevailed, no fewer than

21 Government girls' schools existed in the district. These had dwindled down to 5 in 1881. Comparing the total number of schools of all kinds and the number of pupils at four different periods, they appear to have been as follows :—

Year.	Number of schools.			Number of scholars.		
	Government.	Indigenous.	Total.	In Government schools.	In indigenous schools.	Total.
1850-51 ...	9	364	373	462	3,050	3,512
1860-61 ...	173	183	356	4,204	808	5,012
1871-72 ...	169	109	278	6,077	1,952	8,029
1880-81 ...	141	69	210	5,366	1,165	6,531

“ By a curious caprice, ” writes Mr. Beames [*Comp. Gram.*, I., 39], “ Hindi, when it uses Arabic words, is assumed to become a new language, and is called by a new name—Urdu; but when Panjābi or Sindhi do the same, they are not so treated.” To the same effect are the following remarks, taken from *Notes on the Education Question* (1882) by Mr. Growse :—“ As regards the language question, I have no patience with the continued use of the fantastic word ‘ Urdu.’ What people talk all over these provinces is Hindustāni, which, when written, takes a Persianized form among Muhammadans, and a Hindi form among Hindus. In both phases it has a Hindi basis which cannot be got rid of even in the most artificial Urdu; on the other hand, a multitude of Persian words have been naturalized in its common vocabulary, which even in Hindi it would be pedantic to ignore. As it is already the general medium of intercourse throughout India, all Indian races may eventually be brought to accept it, and therefore the recognition of a multiplicity of spoken dialects as distinct literary languages is much to be deprecated.” There is but one way (Mr. Growse points out) in which a complete reconciliation between Urdu and Hindi can be effected, and that is by the adoption of the Roman character.

It will be observed that it is only “ as distinct literary languages ” that the recognition of the numerous dialects of northern India is deprecated. As forming the only vehicle of communication of very large numbers of the people, that collectively constitute by far the largest proportion of the population, the study of these dialects, and even the attempt to reduce to rule the mutations undergone in the passage from one language-area to another, need not be regarded as other than useful, and even (to those officers of Government at least who are brought into more immediate connection with the masses) necessary.

It has been reserved to the notice of this district to give a brief account of the various languages and dialects of the North-Western Provinces. In the present imperfect state of our knowledge regarding them, notwithstanding the great strides taken of late years, only provisional conclusions can be recorded. The following sketch, therefore, claims to be merely a sketch, its object being rather to stimulate inquiry than to sum up the results of previous knowledge.

It is commonly stated that Hindi is spoken over an area exceeding 248,000 square miles, and by a fourth of the inhabitants of India. In a very limited sense this is true; that is to say, it is true if by Hindi we mean the literary or High-Hindi, under which term Dr. Hœrnle would include Urdu or Hindustāni, but it is not true if we mean to imply that *one* language and one only is spoken over that area. This at least is the decisive statement made by Dr. Hœrnle, whose *Grammar of the Gaudian Languages* has placed him at once in the front rank of oriental philologists. The existence of that work renders it unnecessary here to do more than refer the reader to its pages for the laws of euphonic mutation that have been, by unstinted labour, educed from the seemingly rough and uncouth forms of language in northern India. Something, however, may be said regarding the classification of those forms of speech into languages and dialects that will have an interest for the general reader, and possibly lead him to follow up, in the learned work just mentioned and elsewhere, this most interesting study. Nor should it be supposed that finality has yet been reached, or perhaps approached, in this field, for, both as regards the classification and the grammatical structure of the languages and dialects, fresh light may compel modification of the views here advanced.

Instead of one language, Dr. Hœrnle tells us we must count two languages as existing in the so-called Hindi area. These he in his grammar styles, for want of better names, the Western Hindi and the Eastern Hindi; but the inappropriateness of these terms, conveying as they do the idea that the difference is one of dialect merely, is admitted and deplored. "In reality," writes Dr. Hœrnle, "they are as distinct from one another as Bengali in the east and Panjābi in the west are supposed to be distinct from what is commonly called Hindi." In the prospectus of "A Comparative Dictionary of the Bihāri Language," dated April, 1882, and issued jointly by Mr. George A. Grierson, c.s., and Dr. A. F. Rudolf Hœrnle, it is proposed to replace "Eastern Hindi" by the name "Bihāri." Its habitat is there described as the country between Benares and Purnia on the west and east, and Jabalpur to the Himālayas on the north and south. But, before dealing with the differences between Western

and Eastern Hindi (if so they may still be styled), it will be convenient to refer to their respective affinities to the other languages of the same stock. These allied languages are all comprehended by Dr. Hœrnle in the term Gaudian, which he defines to mean "North-Indian vernacular of Sanskrit origin." The term is evidently derived from Gauṛ (or Gaud), the Sanskrit name of the central part of Bengal, and has at least the merit of convenience. Adopting it, we get a classification into four groups of languages, each group representing what Dr. Hœrnle calls "a speech" :—

I. North Gaudian speech.

Naipáli
*Kumáoni } dialects.
*Garhwáli

II. West Gaudian speech.

*Western Hindi.
Panjábi.
Gujráti.
Sindhi.

III. South Gaudian speech.

Maráthi.

IV. East Gaudian speech.

*Eastern Hindi (or Bihári).
Bengali.
Oṛiya.

The Northern Gaudian "speech" is represented by three dialects of what is apparently one great language, the area of which is bounded on the south by that of Hindi, on the west by the upper Satlaj, on the east by the upper Sankhassi, and on the north by the higher ranges of the Himálayas. Two of the dialects and two of the languages grouped above belong to the North-Western Provinces—those (namely) that are marked with an asterisk : Kumáoni, Garhwáli, Western Hindi, and Eastern Hindi. The two last are the languages of the plains and in each may be distinguished four dialects, or rather groups of dialects, most of them being further sub-divisible.

Western Hindi.

1. Western Rájputána (principal dialect Márwári).
2. Eastern Rájputána.
3. Braj Bháshá.
4. Kanauji.

Eastern Hindi or Bihári.

5. Baiswári or Avadhi.
6. Bhojpuri.
7. Maithili.
8. Magadhi.

Of these we are specially concerned, in an account of the Muttra district, only with one, the Braj Bháshá, which derives its name from Braj or Vraja, the district round Brindában and Muttra, but is spoken all over the upper Doáb, in the plains of the Jumna and Ganges. The other names for the most part carry with them a sufficient indication of the districts where they are spoken, and it should be mentioned that no hard-and-fast lines of demarcation can be

drawn. "Adjoining languages and dialects," writes Dr. Hoernle, "in most cases pass into each other so imperceptibly, that the determination of each will always remain more or less a matter of doubt and dispute. At present we can only fix with certainty the centres of their respective areas." The reader may, however, be reminded that an attempt to mark off these limits has been made by Dr. Hoernle in the coloured map of the languages of North India which accompanies his Grammar.

To the Braj is given the honour of being the typical dialect of Western Hindi. The literary or High Hindi is merely a modified form of the Braj dialect, "which was first transmitted into the Urdu by curtailing the amplitude of its inflexional forms, and admitting a few of those peculiar to Panjābi and Mārwāri; afterwards Urdu was changed into High Hindi." It follows, therefore, that the High Hindi as distinguished from Urdu is a very modern language; while Urdu itself dates only from the twelfth century. To be quite accurate, therefore, we should distinguish not two languages, but three as those spoken in the Hindi area, viz., Western Hindi, Eastern Hindi (or, if we adopt the nomenclature of the prospectus above referred to, Hindi and Bihāri must take the place of Western Hindi and Eastern Hindi), and the High Hindi or Urdu. The last, however, is nowhere the vernacular of the masses, but is the language of literature, of the towns and of the higher classes. It takes the form of Urdu among Muhammadans and of Hindi among Hindus, "a distinction less marked in the mouths of the people than in the books of the learned." These three forms of speech were not distinguished at the recent census. The explanation given in the Census Report is that the prevailing opinion in these Provinces, "which treats them as merely dialectic variations of one language," has been followed [*Census Report*, 1881, p. 89].

Dr. Hoernle's enumeration of the main differences between Western Hindi and Eastern Hindi has been quoted at length in another volume (see MIRZAPUR), and this brief notice may be concluded with a few remarks, for which we are indebted to Mr. Growse's work, on the peculiarities special to the Muttra district. These consist, mainly, in a strong preference for words of Sanskrit origin. Thus, 'water' is *jal*, not *pāni*; 'land' is *dharti*, not *zamīn*; 'a father' is *pitā*; 'a grandson,' *nāti*; and 'time' *samay*. Common phrases used in conversation are usually Hindi; thus the Persian *ikbāl*, 'good fortune,' is represented by the Hindi *pratāp*; and *tashrif lādā*, 'to arrive,' by *kirpā karnā*. The number of words absolutely peculiar to the district is probably very small. A glossary of expressions that might strike a stranger as unusual will be found at the end of Mr. Growse's *Memoir*, and it will suffice

to refer the reader to it. The use of a periphrasis, *e. g.*, *pānch ghat assi, i. e.*, 80—5-75, instead of *pachhattar*, to express numerals, is common in the villages. In pronunciation, too, there are peculiarities: *s* is substituted for *sh*, as in *sāmīl* for *shāmīl*; *ch* for *s* as *chitā* for *sitā*; occasionally the last is reversed, as *charsa* for *charcha*; the vowels *a* and *i* are often interchangeable in *Lakshman* or *Lakshmin*, *Brahman* or *Brahmin*. For *d* is often used *a*, as *chalo gayo* for *chalā gayā*, but this is by no means confined to Muttra. Neither is the use of *kārī* for *kī*. The sign of the agent *ne* is sometimes used as a sign of the dative. For the oblique forms *us*, *is*, of the demonstrative pronouns we always hear *wā*, *tā*, in Muttra and in neighbouring districts.

In connection with the subject of language the reader may be referred to an exceedingly interesting chapter (the twelfth) in Mr. Growse's work dealing with the "Etymology of Local Names." Space, however, forbids more than a reference.

As might be presumed from the account of education given in a former page, the list of local native authors and their works is not a long one, nor does it contain a single name of note beyond the limits of the district. The following printed works may be mentioned: *Purān Pramān Sundarbh* (Commentaries on the Purāns) in Sanskrit, by Pandit Udai Parkāsh Deo Sarma; *Kuru-vausa* (History of the Kuru dynasty) in Sanskrit, by Pandit Mukand Lāl Deo Sarma; three lectures in Hindi on the degraded state of India, by Pandit Rādhā Chāran Goswāmi; some erotic verses regarding Krishna and Rādhā in Hindi, by Sāh Kūndan Lāl; two books of Euclid in Urdu, by Dābu Ātma Rām, B.A.; a treatise on physic in Hindi, by Chaube Dip Rām; a Persian letter-writer, by Lāla Jawāhīr Lāl; and an elementary work on arithmetic in Urdu, by Nūr-ul-lāh. There may be others, but the above includes all the names supplied by the Collector.

There are three printing presses, one called the *Mumbai ul-'ulūm*, owned by Kanhaia Lāl, and the other two, both called the *Muttra Press*, owned respectively by Rām Narain and Mewa Rām. The press belonging to the last-named proprietor issues a monthly paper called *Nairang-mazāmin*.

There are two societies (*sabha*), partly religious and partly literary, in Muttra, and one wholly religious in Brindāban. Those in Muttra are the *Ārya Samāj* established in January, 1882, and the *Bhargu Sabha*, established in December, 1881. The former consists of about 40 or 50 members, and is held every Sunday in muhalla Mandavi Rām Dās, its object being the propagation of the religion enjoined

by the Vedas. The latter is composed exclusively of Dhúrsars, who meet only occasionally in muhalla Sítlaghāt, the object of the society being the advancement of education and religion. The society at Brindában was established in February, 1881, and is called the *Vasuya Dharm Parichári*. It is held twice a month, on the 11th of the bright and dark halves of the moon, in muhalla Rádháraman. About 150 or 200 persons assemble on these occasions; the *Bhagavad Gita* is read and a lecture on religion is given.

The district contains 15 imperial and 6 district post-offices. The former are at Muttra, Muttra cantonment, Aríng, Baldeo, Brindában, Chháta, Farah, Gobardhan, Kosi, Mahában, Mát, Nohjhíl, Raya, Sa'dabad, and Sahár. The district offices are at Barsana, Ol, Sahpau, Shergarh, Sonkh, and Surír. The postal receipts for four out of the past twenty years were as follows:—in 1865-66, Rs. 10,045; in 1870-71, Rs. 11,943; in 1875-76, Rs. 24,119; in 1880-81, Rs. 17,831. In the last-mentioned year, Rs. 7,631 was obtained from unpaid letters, &c., and Rs. 8,712 from the sale of ordinary postage stamps. The expenditure in 1865-66 was Rs. 6,926; in 1870-71, Rs. 13,517; in 1875-76, Rs. 12,461; in 1880-81, Rs. 11,357. In the fifteen years 1865-81, the number of newspapers, parcels, and books annually received has more than doubled, while the number of letters received has more than trebled.

There is no Government telegraph office in Muttra, but there are five offices belonging to the different railway companies. They are at Jalesar-road station on the East Indian Railway; Muttra and Raya stations on the Muttra-Háthras Light Railway; and Muttra and Parkham stations on the Muttra-Achhnera Railway.

According to the latest allocation statement Muttra contains 31 police-stations, 7 first-class, 2 second-class, 15 third-class, and 7 fourth-class. The first-class stations are at Muttra city, Farah, Sa'dabad, Kosi, Baldeo, Raya, and Aríng; the second-class at Nohjhíl and Chháta; and the third-class at Sadr Bázár, Jait, Mát, Shorgarh, Sahpau, Mahában, Surír, Sahár, Sonkh, Barsána, Rasúlpur, Gobardhan, Majhoi, Brindában, and Ol. The fourth-class stations or outposts are at Bájana, Gíglá, Sonai, Hansganj, Bhartpur road, Brindában road, and Mohanpur or Aurangabad.

In 1881, the regular, municipal, and town police mustered together 881 men of all grades, including 16 mounted constables. There was thus one policeman to every 1·64 square miles and 761 inhabitants. The cost of the force was Rs. 82,041, of which Rs. 54,295 were debited to provincial revenues, and the remainder defrayed from municipal and other funds. Besides these there

were, in 1881, 1,602 village and road watchmen, distributed amongst the 973 inhabited villages of the district at the rate of one to every 304 inhabitants. Their sanctioned cost, Rs. 58,236, was met out of the 10 per cent cess.

The statistics of reported crime for the six years 1876-81 include 49 murders, 36 dacoities, and 85 robberies. The value of property stolen varied from Rs. 29,001 (of which Rs. 15,007 were recovered) to Rs. 76,704 (of which Rs. 12,697 were recovered). The percentage of convictions to persons tried varied from 78 to 87. But these and other similar matters are fully dealt with in the departmental reports and do not call for further notice here.

Muttra was relieved from the operation of the Infanticide Act (VIII. of 1870) in 1874. The rules of the Act were enforced from 10th May, 1871, the villages proclaimed being six in number, four of Rājputs (Jādon and Jāhlot) and two of Ahīrs. The population of these villages was 2,335, of whom 512 were boys and 248 girls. In 1872 the number of villages had decreased to 5, and in 1874, as mentioned above, these villages were relieved from the operation of the Act.

There is but one jail in the district. The average number of prisoners was 450 in 1850; 101 in 1860; 179 in 1870; and 167 in 1880. The other statistics present no constant features, varying from year to year. They will be found in all necessary detail in the annual reports.

Before proceeding to the next head—the fiscal history of the district—it will be convenient to give details of area, revenue, and rent for the district at the present time (1882).

By prefixing these statistics to the head just mentioned, comparison between the present and past conditions of the district will be facilitated. The district is still a temporarily-settled one; in other words, the amount taken as land-revenue is fixed for a term of years. The current settlement has been sanctioned by Government for a term of 30 years, which commenced on different dates in different parganahs, viz., in parganah Sa'dabad from June, 1875; in parganahs Mahāban and Muttra from June, 1876; in parganahs Ohhāta and Kosi from March and June, 1877, respectively; and in parganah Māt (Noh-jhāl) from March, 1878. The dates on which the settlement will expire fall, therefore, between the years 1905-8.

The total area in 1881-82 was 1,440.9 square miles, of which 1,111.3 were cultivated, 228.5 cultivable, and 101.1 barren. The area paying Government revenue or quit-rent was 1,311.4 square miles (1,011.3 cultivated, 210.5 cultivable, 89.6 barren). The amount of payment to Government, whether

FISCAL HISTORY.

land-revenue or quit-rent (including, where such exists, water-advantage, but not water-rates) was Rs. 16,05,110; or, with local rates and cesses, Rs. 18,13,238. The amount of rent, including local cesses, paid by cultivators was Rs. 27,43,867.

Fiscal history.

The early fiscal history of Muttra presents unusual difficulties; for, in the first place, the separate units of area that now make up the district only came under a common administration in the year 1832; and in the second place, the physical characteristics of the two halves of the district, distinguished as the cis-Jumna and the trans-Jumna parganahs, have, to a considerable extent, influenced the fiscal history of each. We shall, therefore, in the following brief review, follow the course adopted in the *Settlement Report* and deal with the history of each half separately.

It will be convenient, however, to begin by recapitulating briefly the circumstances under which the territory now comprised in Muttra came under British administration, and also the arrangements for the collection of revenue made immediately on the annexation. It has been mentioned in Part I. (*supra* p. 5) that most of what is now the Muttra district passed into the hands of the British, at the end of 1803, by the treaty of Anjangan made with Sindhia. In the schedule attached to that treaty, the parganahs and separate estates, with the estimated yearly value of each, appear as follows:—

		Rs.
General Perron's jagir	... { Noh-jhil	... 1,15,000
	... { Sousa	... 20,000
	... { Mat	... 1,41,500
	... { Sa'dabad	... 2,02,088
	... { Sahpan	... 40,000
	... { Mahaban	... 21,424
General DeBoigne's jagir	... Muttra and customs collected	55,000
	... in Nohjhil	6,000
Under Ambaji Inglin	... Husa.nganj and Panigao	13,23,370
Zamindari of Ranjit Singh in the Doab west of the Jumna	...	19,24,362
Ditto	Total	...

Regarding the above estimated yearly value, it should be observed that, owing chiefly to the difference in the area of the various estates mentioned in the treaty, as compared with the area of the present district, a difference that cannot now be exactly ascertained, and, further, owing to the doubt that exists regarding the value of the rupee in which the calculations were made, the figures do not admit of comparison with those of British assessments. The disposal of the parganahs among the British districts of Farukhabad, Etawah, and Agra, has been mentioned in Part I.; where it was also stated that considerable doubt exists as to the dates when several of those parganahs came, for the first time, under British administration. We may take it, how-

ever, as certain that the trans-Jumna parganahs, now constituting the Mát, Mahában, and Sa'dabad tahsils, were, in 1804, included in the Aligarh district; while the cis-Jumna parganahs, included in the modern tahsils of Muttra, Ohhâta, and Kosi, were, in 1808, part of the Agra district. The arrangements made for the realization of the revenue immediately after the annexation, are contained in a proclamation issued by the Commander-in-Chief on 11th October, 1804, and were afterwards incorporated into and enlarged by Regulation IX. of 1805. It will be sufficient to refer the reader for the details of these arrangements to Chapter III. of Mr. Whiteway's *Settlement Report*, merely observing here that they contemplated a series of short settlements to be made with independent zamíndárs in preference to talukdárs, and to culminate, in 1815, in a permanent settlement of all lands that should then be in a sufficiently advanced state. No such permanent settlement of this district, it is scarcely necessary to say, has yet been made.

In the trans-Jumna parganahs—Nohjhl, Mát, Ráya and Sonai, Mahában and Sa'dabad—the great error at the outset, though one perhaps unavoidable at the time, was that of favouring talukdárs to the detriment of the real village owners. Thus, we find that the whole of this tract was at

The first triennial settlement. the first settlement, made in 1804 and called the first triennial, settled with only three persons. Their names, the tenure on which they held, and the revenue that they engaged to pay, may be conveniently shown as follows:—

Talukdár.	How held.	Parganah or estate.	Jama.		
			Rs.	a.	p.
Rája Dáya Rám of Háth-ras.	Farm ...	Mahában	99,275	0	0
		Mát	40,707	0	0
		Sonai	23,843	0	0
		Ráya	16,517	0	0
		Sahpan	25,161	0	0
		Chúra Hansi (in N. of Mahában) ...	251	0	0
		Bírnagar (in N. of Sa'dabad) ...	168	0	0
		Total ...	2,05,922	0	0
Rája Bhagwant Sinh of Mursan.	Taluka ...	Taluka Ar Lashkarpur (in E. of Mahában) ...	13,311	12	0
		Villages of Sa'dabad ...	10,094	13	0
		Rest of Sa'dabad ...	1,35,750	0	0
	Farm ...	Sonkh and Madim (in E. of Mahában) ...	7,445	0	0
		Dunetia (in S. of Mát) ...	2,229	0	0
		Total ...	1,68,830	2	0
Ranmast Khán ...	Do. ...	Noh-jhl	62,000	0	0

The farm to Ranmast Khán was especially ordered as a conciliation to a powerful rebel. Rájá Dayá Rám had obtained possession, immediately after the conquest, of the estates that stand opposite to his name in the above list. Sa'dabad had, shortly after that event, been given in farm to Rájá Bhagwant Sinh. The reasons recorded by the settlement officer for continuing these talukdárs in possession, had reference to the presumed refractory and violent spirit of the zamíndárs, and to the difficulty that was anticipated if any attempt were then made to disturb their possession. No very long time, however, elapsed before Government felt itself strong enough to disregard the danger of removing them; while any considerations of injustice to the talukdárs in taking this course, were rendered unnecessary by their own conduct. Ranmast Khán, after two years' tenure of his farm, lost it by an act that amounted to open rebellion. Dayá Rám and Bhagwant Sinh did not openly rebel, but they were constantly setting the power of Government at defiance. When, therefore, Commissioners were appointed, under Regulation X. of 1807, to superintend the second triennial settlement, the first task to which they had to address themselves, was the carrying out of new arrangements consequent upon the removal of these great farmers.

The second triennial settlement was, for the most part, made with the village

The second triennial settlement. zamíndárs. The change of system was accompanied, however, by a very large increase in the assessment; and this, together with other causes, led to its failure. The period for which it was sanctioned was the three years 1808-11, and it has been described as the most disastrous settlement ever made in this district. An important circumstance in connection with it was the grant to Bhagwant Sinh, as compensation for the loss of his farm, of *talukdári* rights in Sonkb, Madím, and Dunetia, a measure that has been described as one by which "the rights of the zamíndárs were openly and flagrantly set aside." Twenty-six years later, such of the zamíndárs as still existed were admitted to engagements in the inferior position of *mukaddams*; but they were still saddled with heavy payments, by way of *málikána*, to Bhagwant Sinh's descendants, the rajas of Mursan. Reverting to the large increase of revenue, the chief reason assigned for it was the intention of Government to make the demand a permanent one. The assessment was progressive, the full amount being reached in the third year, when the sum exigible was Rs. 6,85,605. This represented an enhancement of no less than Rs. 2,64,933 on the sum payable by the talukdárs. Other causes of failure than the excessive demand were: (1) the absence of any demarcation of the boundaries of estates; (2) the absence of records-of-rights; and (3) the

too frequent admission to engagements of persons that were not the best entitled to engage, but had intrigued most successfully with the subordinate native officials. As regards the last of these causes, it is said to have been not unusual for those officials to enter zamíndárs as *mukaddams*; these were then treated by the collector as farmers, and the subordinate officials, usually the kánúngos, had an opportunity, which they rarely neglected, of claiming the proprietorship for themselves. Another source of oppression was the practice of requiring from the zamíndárs security to the extent of one-fourth of the demand. The result of this was generally to saddle the revenue-payer with a tax of 5 per cent., paid to some intriguing money-lender that gave the security. The evil effects of this settlement were most felt in parganah Sa'dabad. Heavy remissions of revenue were found necessary, and, by the end of the first year of the next settlement, three-fourths of the parganah had been farmed.

The next settlement, to which reference has just been made, is distinguished

The quadrennial settlement, 1811-15. as the quadrennial, but it was not a re-settlement so much as a continuation of previous engagements, except where zamíndárs were in arrears, or refused to engage, or where villages had been let in farm, and the farms had lapsed. The total demand was Rs. 6,81,380, showing a slight reduction on the previous assessment. But before the end of the term, further reductions, chiefly on account of the scarcity of 1813, had to be made. At its conclusion, parganahs Sa'dabad, Mahában, Ráya, Sonai, and Sahpau, were, with others, constituted a division of the Ali-garh district, and placed under Mr. Boulderson, with headquarters at Sa'dabad. This occurred on 11th March, 1815. But on 8th October, 1816, a further re-arrangement took place: Sahpau and other parganahs were then transferred to Agra, and, in exchange, Noh-jhál and Sikandra Ráo were placed under Mr. Boulderson.

That officer made the arrangements for the quinquennial settlement, and

The quinquennial settlement, 1816-20. it was found possible to increase the revenue-demand by over Rs. 60,000, to Rs. 7,41,917. On this settlement much praise has been bestowed, its good qualities being attributed chiefly to Mr. Boulderson's able administration. Its term was subsequently extended until the completion of the new settlements under Regulations VII. of 1822 and IX. of 1833. Before these new settlements were made, two further changes of jurisdiction occurred. A new district, called Sa'dabad, comprising all the trans-Jumna parganahs, was created on 31st October, 1823; and again, in 1832, the cis-Jumna parganahs were added to it, the name being, at the same time, changed to its present one, on the transfer of the headquarters to Muttra.

The settlements under Regulation VII. of 1822 in Mahában, Ráya, Sonai, Sa'dabad, and a few villages of Mát, were carried out by Mr. Deedes. 'Sahpau was settled under the same regulation by Mr. Tyler. The rest of Mát and the whole of Noh-jhál were settled by the last-named officer under Regulation IX. of 1833. The new demand was fixed at Rs. 7,92,131, being an enhancement of about Rs. 50,000 over the previous assessment. To this sum was added, in 1840, about Rs. 25,000 on account of some villages that were in that year received from Aligarh. These comprised the talukas Sonkh, Madím, Dunetia, Ár-Lashkarpur, and three villages (Chauhari, Khandia, and Tehra) of taluka Joár. The arrangement whereby a sub-settlement was made with the *mukaddams*, by way of recognition of the injustice done to them in 1808, has been already mentioned.

Passing now to the other half of the district, the cis-Jumna parganahs, we find that they had a happier history than those we have just treated of. From the first the settlements in this tract were made, as far as possible, with the original village communities, to the exclusion of farmers or talukdárs. Further, as we shall see, the revenue imposed was, in comparison with that of the trans-Jumna tract, extremely moderate. The 'second triennial' in 1809 was the earliest settlement that included all the cis-Jumna parganahs. Muttra parganah alone had been included in the previous or 'first triennial' settlement. But the limits of the parganahs, as they were then constituted, differed considerably from their limits at present, and the figures showing the revenue at the earlier settlements do not admit of exact comparison with the assessment now in force. For our purpose, it will be sufficient to state broadly that the demand of the 'second triennial' settlement of the cis-Jumna parganahs, excluding Gobardhan, was Rs. 3,40,000; while the assessment at the recent settlement was Rs. 6,20,000. Allowing Rs. 40,000 for the revenue of Gobardhan and resumed *mudfis*, the difference, Rs. 2,40,000, represents, therefore, the loss that Government would have sustained had the demand been fixed, 70 years ago, in perpetuity. In the interval between 1810 and 1837, successive settlements, known as the quadrennial, quinquennial, &c., were made; and in the latter year the demand had risen to Rs. 5,46,808. The figures just given include the assessment of Gobardhan, which had been handed over to the British authorities from Bhartpur in 1826 (*supra*. p. 6), and are those for the settlement under Regulation IX. of 1833.

We have now reached the point where the histories of the two halves of the district for the first time meet. But even now the reader must be reminded that the 84 villages transferred from the Farah tahsil of the Agra district to the Muttra tahsil in 1878, are in this review at present omitted from consideration. With this omission the assessment of the whole district was, at the commencement of the settlement that has recently expired, Rs. 13,63,901. In the plan of that settlement we see the transition between the early empirical method and the elaborate one that was adopted at the recent, and still current, settlement. It is unnecessary here to enter into all the details of these measures. - They have been recorded with great elaboration in Mr. Whiteway's Report. Their results and general history are all that need be noted.

The first thing to remark concerning the settlement of 1833 is that it must from the first have been a light assessment in the cis-Jumua tract, where the incidence of the revenue was at its expiration only Rs. 1-10-11 per cultivated acre. In the trans-Jumua tract, on the other hand, the incidence was at the same period Rs. 2-8-3 per acre, and doubtless, during the earlier years of the settlement, this must have pressed most severely on the soil. It had to contend at its outset with the severe famine of 1837-38. At that time Sa'dabad and Sahpau had been settled 7 years; Mahaban, 5 years; Mat and Noh-jhil, 3 years; Sahar, Shergarh, and Kosi, 1 year. In Aring and Sonkh the new revenues were to come into force in the very year of the famine; the settlement of Muttra, Gobardhan, and Kosi had not been touched. The difficulty was met by extensive remissions of revenue. But, as the Kosi tahsil was recovering from the effects of that famine, it was nearly overwhelmed by another disaster, in the form of a hailstorm, on 1st March, 1841. Half the standing crops were utterly destroyed, and more than half of the demand had to be remitted. Successive years of drought so weakened the productive power of the parganah that a revision of the settlement had to be made in 1842-44, whereby the demand for Kosi was reduced to the extent of Rs. 11,279.

The later history of this settlement, however, was until the mutiny one of prosperity, and even that event had very slight direct influence upon it. There were several farms in Sa'dabad for arrears of revenue in the mutiny year; some sales of villages in Noh-jhil, owing to their inability to pay the mutiny fine; and some Gújar villages confiscated for rebellion. The famine of 1860-61 left no permanent mark on the district, and the remissions on account of it did not amount to more Rs. 2,000. One cause of this prosperity,

FISCAL HISTORY.

and the principal one, was the enormous rise in prices, of which more will be said hereafter.

Alienations.

Before closing the history of the last settlement, passing notice may be taken of the extent to which during its currency transfers of landed property took place. The statistics on this subject given in the *Settlement Report* do not pretend to great accuracy. But the general deduction that may be drawn from them is that, during the currency of the settlement of Regulation IX. of 1833, one-third of the entire district had changed hands through sale or mortgage. In the cis-Jumna paraganahs the transfers rarely had any connection with the Government demand; but in the trans-Jumna tract the bulk of them were due to its severity. The increasing ease with which the revenue was met in the years after the mutiny, is seen in the higher price of the land and the comparatively small number of auction sales. In the first 12 years of the settlement, 64,467 acres were sold for arrears of revenue: in the last twenty (1857-1877), only 9,914. Between 1838-50 the average price of land by private sale was Rs. 3½ an acre; between 1850-57 it was Rs. 8¼; between 1857-77 it had risen to Rs. 14.

Operations for the current settlement, the fifth in order since the annexation, commenced in April, 1872, and were closed in March, 1879; they occupied therefore about seven years. The whole district, except Mát and Noh-jhil, was inspected and assessed by Mr. M. A. McConaghey; Mát and Noh-jhil by Mr. R. S. Whiteway. The latter has in his Report given so full an account of the operations that the briefest summary will here suffice. The survey, which lasted from 1871 to 1875 and cost, exclusive of printing charges, Rs. 2,69,093, was of the kind known as cadastral¹. It was the duty of the survey staff to fill in certain columns of the field index (*khaskra*), in addition, of course, to their special survey operations. The entries thus filled up showed: [1] the number of the field; [2] its total area in acres; and [3] its description, as regards cultivation and the existence of wells. To the settlement department fell the task of adding the other items, such as the names of the owner and cultivator, the class of soil, and the crop on the ground. While these and other statistics were under preparation, the settlement department prepared the various records in the rough, preparatory to their attestation. In the course of these proceedings, disputes regarding ownership were summarily decided as they arose, and similarly with the claims put forward by tenants to be recorded as having rights of occupancy. These

¹ For an explanation of the term 'cadastral' and a comparison of this method of survey with the non-professional (called 'the settlement survey'), see Mr. Vincent Smith's *Settlement Officer's Manual*.

rough records were then turned into the forms used for village papers, the most important of which are the rent-roll (*jamabandi*) and the record-of-rights (*wājib-ul-'arz*).

The assumption of rent-rates, the second main step in the settlement, is the

Assumption of average rent-rates. process of fixing on a fair rate of rent for each description of land, the rates to be such as could readily be paid by any village to which they might be applied. In arriving at these average rates, while probable enhancements, during the term of the new settlement, of unduly low rents were allowed for, any anticipated rise in the standard of rent during the same period was omitted from consideration. Actual rentals, so far as they represented fair rents, were taken as the basis for assuming average rent-rates. It is plain, therefore, that the first and most important matter to be dealt with in order to arrive at these, was an accurate classification of the several descriptions of soils. The main divisions adopted were such as the reader of previous notices of fiscal history in this series cannot fail to be familiar with. In every village the manured home-lands (*bāra*) were first of all marked off from the outlying area (*barha*); these constituted the two so-called artificial circles. In Sahpau, Sa'dabad, Mahāban, and Muttra the *bāra* area was sub-divided into *gauhān* and *manjha*, the inner and the outer belt of home-lands, and each of these underwent further sub-division according to their qualities. In the other parganahs the *bāra* area was kept as a single circle, but it was similarly sub-divided as in the case of *gauhān* and *manjha*. In the same way sub-classes of soils were distinguished in the *barha* or outlying area. In classifying the *barha*, however, the natural qualities of the soil and the facilities for irrigation were alone considered; in the *bāra* area the former were rarely of importance, good cultivation, manure, and water having usually obliterated any distinction that might have been founded upon them. The main points attended to with regard to the *bāra* area were: (1) abundance or scantiness of manure; (2) position with regard to the village site; (3) quality of the cultivation; and (4) quality of the water. Altogether from 20 to 25 classes of soil, each with its separate rent-rate, were employed in the assessment of a parganah.

The soil areas having been thus classified, the next matter was to determine the soil rates that applied to them. Two methods were adopted; the first in Sahpau, Sa'dabad, Mahāban, Muttra and Māt (including Noh-jhāl), and the second in Chhāta and Kosi, a peculiarity of the holding in the last two preventing the employment in them of the method used in the others. The first method consisted in selecting among the villages of a parganah those in which average *bonâ fide* rents were payable. This was in itself no mechanical

previously described, and the total for each was then compared with the total for the whole district. It was always found that the rents paid for holdings in a particular pargana were resumably in a ring fence, run rather higher than general rates, and, thus, the approximation was in all cases very close."

The second method of determining average rent-rates was adopted in Ohhāta and Kosi, because practically the whole area is either held as *str* or by tenants' holding at customary rates or rack-rented. The rates used for assessment in these pargana's are those rates which from enquiries were found to hold in the very few cases where there existed any fair rents. The discovery of these was a matter of great difficulty, and the methods adopted could not be fully explained here without reproducing the greater part of Mr. McConaghey's *Rent-rate Report*, which specially deals with the subject.

The following table exhibits the principal rent-rates per acre that were thus deduced, for each of the principal classes of soil, in each pargana of the district:—

	Sahpau.	Sa'da-bad.	Mahā-ban.	Māt.	Noh-jhīl.	Muttra.	Chhāta.	Ko.
	Rate.			Rate.	Rate.	Rate.	Rate.	Rs.

[illegible]

	Sahpau.	Sa'da- bad.	Mahā- ban.	Māt.	Noh-jhl.	Muttra.	Chhāta.	Kosi.
	Rate.	Rate.	Rate.	Rate.	Rate.	Rate.	Rate.	Rate.
Gauhān, I.	Rs. 12	Rs. 12½	Rs. 14	Rs. 12	Rs. 12	Rs. 12	Rs. 8	Rs. 9
Ditto, II.	10	10½	10½	10	10	7	6	7
Ditto, III.	9	9½	8	8½	8½	6½	5½	6
Manjha, I.	7	7½	10	7½	7½	6	4½	5
Ditto, II.	...	...	8	6	6	5½	6	..
Ditto, III.	...	...	7	...	...	...	...	...

	Sahpau.	Sa'da- bad.	Mahā- ban.	Mat.	Noh-jhīl.	Muttra.	Chhāta.	Kosi.
	Rate.	Rate.	Rate.	Rate.	Rate.	Rate.	Rate.	Rate.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Home-lying <i>tardi</i> ...	8	8½	8	...	...	...	5½	...
Irrigated <i>barha</i> , I., good.	7½	7½	7	...	...	5	5	5
Ditto, fair ...	6½	6½	6	6½	5½	4½	4½	4½
Ditto, II., good ...	5½	5½	4½	5½	5½	4½	3½	3½
Ditto, average ...	6½	...	...	5	4½	...	...	...
Irrigated <i>barha</i> , <i>tardi</i> ,	6	5½	6	5½	5½	...	5	5
Dry ditto ...	4½	4	4½	4	4	...	...	3½
Dry <i>barha</i> , I., good,	5	5½	5	4½	4½	4	3½	4
Ditto, fair,	4	4½	4	...	...	3½	3½	3½
Ditto, below average,	...	...	...	...	...	3½	2½	2½
Ditto, II., good ...	2½	3½	3½	3½	3½	3	2	...
Ditto, average...	3½	...	...	...	...	...	1½	...
Irrigated <i>pāth</i> ...	3	3	3	3½	3½	...	1	1½
Ditto, bad ...	...	...	...	3	3	...	...	...
Dry <i>pāth</i> , fair ...	2	2	2½	2½	2½	2½	...	...
Ditto, bad ...	...	...	1½	1½	...	1½	...	...
Irrigated <i>rākar</i> ...	...	...	...	4½	4½	...	...	...
Dry <i>rākar</i> ...	...	...	...	3	3	...	...	...

A rigid application of the principle of half-assets, as it is called, or Assessment of the revenue, assessing the Government demand at 50 per cent. of the assumed rental, would have resulted in a somewhat larger sum, as the share due to the State, than was actually assessed. The difference between these two amounts, about Rs. 50,000 for the whole district, represents the total of the allowances made, on a vast number of estates, for the special characteristics of each. The task of making these allowances is well described as a "most delicate" one; it may almost be said to have rested on the discretion of the assessing officer (see *Settlement Report*, p. 97).

This part of the fiscal history of the district may be illustrated by the following statement, showing for each parganah the expiring demand of the settlement under Regulation IX. of 1833, the assessments at the current settlement, and the percentage of increase :—

				Expiring demand.	Present assessment.	Percentage of increase.
				Rs.	Rs.	
TRANS JUMNA	{	Sabpan	...	57,115	60,900	6
		Sa'dabad	...	2,29,672	2,55,116	11
		Noh-jhil and Māt	...	2,45,856	2,81,820	14
		Mahāban	...	2,88,633	3,14,287	9
CIS-JUMNA	{	Muttra	...	2,15,237	2,49,263	16
		Chhāta	...	1,77,308	2,02,933	14
		Kosi	...	1,51,181	1,67,040	10
		Total	...	13,65,002	15,30,464	12

The revenue, therefore, rose from Rs. 13,65,002 to Rs. 15,30,464, or by 12 per cent. To this must be added the revised revenue of the 84 villages transferred from the Farah tahsil of the Agra district in 1878, Rs. 97,630, making total of Rs. 16,28,094 for the whole district. But this was not the amount exigible at once, as, owing to the operation of progressive assessments, a lower immediate revenue was payable. On the 1st October, 1880, it had reached the sum given in the official statement already quoted, Rs. 16,08,795, and will reach the full amount assessed for the remainder of the term of settlement in 1882-83.

The assessments of certain estates known as the *khadar mahdls* were made with a view to five-yearly engagements only, the rest of the district being settled for thirty years. These estates are those that include lands liable to be swept away by the river, or that may be expected to receive increment by alluvion. Where the river bluff exists there is little difficulty in the demarcation of these estates; but where the bluff is replaced by sand-hills, or that does not offer much resistance to the current of the Jumna, the task is a more complicated one (see *Settlement Report*, p. 97).

Incidence of the demand of the expired as compared with that of the current settlement.

The incidence of the demand of the expired settlement, compared with that imposed by the current settlement, is, by parganahs, as follows :—

Name of parganah.		Expiring demand of last settlement fell on the			Final demand of this settlement falls on the		
		Cultivated area per acre.	Assessable area per acre.	Total area per acre.	Cultivated area per acre.	Assessable area per acre.	Total area per acre.
		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
TRANS- JUMNA.	Sahpau ...	3 1 8	2 14 10	2 10 11	3 5 0	3 1 11	2 13 10
	Sa'dabad ...	2 13 0	2 10 8	2 7 2	3 1 11	2 15 5	2 11 5
	Mahāban ...	2 8 2	2 4 8	1 14 3	2 11 9	2 7 11	2 1 1
	Māt ...	2 3 2	1 14 2	1 11 9	2 8 3	2 2 7	1 15 9
Total ...		2 8 3	2 4 5	2 0 1	2 12 8	2 8 4	2 3 8
CIS- JUMNA.	Muttra ...	1 12 1	1 8 9	1 2 7	2 0 5	1 12 9	1 5 6
	Chhāta ...	1 8 2	1 5 5	1 1 5	1 11 10	1 8 8	1 4 1
	Kosi ...	1 13 2	1 10 1	1 8 8	2 0 2	1 12 9	1 11 3
Total ...		1 10 11	1 7 10	1 3 6	1 14 8	1 11 4	1 6 3
District total ...		2 1 6	1 14 1	1 9 6	2 5 8	2 1 9	1 12 8

The revenue assessed on the wet area falls on the whole wet area at Rs. 2·95 the acre, and that on the dry area at Rs. 1·65 the acre. The above statement does not include the 84 villages transferred from Agra in 1878. The present demand on them falls at the rate of Rs. 1-13-6 on the cultivated acre, as compared with the former rate of Rs. 1-9-6; and the incidence of the final demand on cultivation for the whole district is, therefore, Rs. 2-5-1. In the Government review of the settlement report will be found a discussion of the comparative incidence of the revenue on the several parganahs. It is sufficient to note here the conclusion drawn, which is, that while the trans-Jumna parganahs are highly assessed as compared with those of other neighbouring districts, the cis-Jumna parganahs have been treated leniently. The differences in irrigation and cultivation of the two tracts are held to satisfactorily account for this different incidence of the revenue.

Excluding the Farah villages, the total cost of the settlement amounted to Rs. 6,02,973, but the extra collections from the demand (without cesses) had more than reimbursed that cost by the end of the agricultural year 1878-79.

It is unnecessary to give the revenue collections and balances for the last ten years, as in no case, not even in the year of scarcity (1877-78), did the amount of balance reach 1 per cent.

With the exception of a few estates in the lowlands (*khádar*) of Muttra, Chhátá, and Kosi, where July 1st is fixed, the following are the dates for the payment of the revenue :—

Collection of revenue.					
Instalments of rent.					
Sa'dabad	} ...	...	...	...	{ Early kharif, December 15th.
Mahában					{ Late kharif, January 15th.
Muttra					{ Rabi, June 1st.
Chhátá	} ...	...	...	...	{ Early kharif, December 1st.
Kosi					{ Late kharif, January 1st.
Mát (Noh-jhíl)					{ Rabi, June 1st.

The grounds on which these dates were fixed are detailed in the *Settlement Report*, and need not be quoted here.

Owing to the short time that has elapsed since the commencement of the current settlement, statistics of alienations are almost valueless as an indication of its working or of the market price of land. From a statement of transfers by private sale, both of revenue-paying and revenue-free lands, prepared by the collector in 1882, it appears that the largest area of the former class of lands transferred in any one year in any tahsil, since the beginning of the current settlement, was 4,750 acres in Muttra tahsil, in 1878-79. The lowest was 162 acres in Kosi in the same year. The highest average price per acre in any year in any tahsil was Rs. 79-2-2,

realized in that of Multra in 1877-78; the lowest, Rs. 10-15-2, in the same tahsil in 1879-80. The variations in the case of revenue-free land were even more startling, ranging from Rs. 7, the average price per acre in Ohhāta in 1878-79, to Rs. 118-14-0, the average price in Sa'dabad in 1880-81. As regards this class of land the very small area that passes by sale must be considered, preventing, as it does, any safe deduction from the figures as to the market price of this class.

The great landholding castes and tribes of the district, with the proportion owned by each in either half of the district at the time of the settlement, are as follows :—

Trans-Jumna.

Caste.	Proportion owned by resident zamindárs.	Proportion owned by non-resident zamindárs.	Proportion owned by both classes.
Ját ...	26·2	7 8	34·0
Brahman ...	11·2	13·5	24·7
Bania ...	2·5	11·2	13·7
Thákur (Rájput) ...	7·8	2·3	10·1
Muhammādan ...	1·3	5·1	6·4
Other castes and tribes ...	1·9	9·2	11·1
Total ...	50·9	49·1	100·0

Cis-Jumna.

Caste.	Proportion owned by resident zamindárs.	Proportion owned by non-resident zamindárs.	Proportion owned by both classes.
Ját ...	21·5	5·9	27·4
Thákur (Rájput) ...	14·2	6·2	20·4
Brahman ...	13·0	6·5	19·5
Bania ...	0·6	7·2	7·8
Káyath ...	...	6·4	6·4
Muhammādan ...	3·3	1·0	4·3
Dhúsar ...	0·5	2·9	3·4
Gújar ...	3 1	0·1	3·2
Other castes and tribes ...	1·3	6·3	7 6
Total ...	57·5	42·5	100·0

In the trans-Jumna tahsils the Ját and Rájput landlords are mostly residents, Banias and Muhammadans largely absentees; in the cis-Jumna tahsils Brahmans, Muhammadans, Gújars, as well as Ját and Rájputs, are resident, while Banias, Káyaths, and Dhúsars are there the chief absentee owners.

The extent to which the great landholding castes have lost property since British occupation, is a subject of some interest, and the statistics just given, combined with those of the colonization of the district by the various castes given in the settlement report, enable a rough idea on the subject to be gained. Thus it would appear that in the trans-Jumna parganahs Jâts have lost about one-half and Thákurs one-fifth; while, on the other hand, Banias have, from owning but two villages at the conquest, come to own one-seventh; Brahmans have doubled and Muhammadans have tripled their possessions. In the cis-Jumna parganahs, Jâts have lost only about one-seventh, Thákurs (not counting the acquisitions of the Awa rájas about one-half, Gújars nearly two-thirds, and the Muhammadans (Malkánas) a very large share of their property; the gain to the Brahmans has been 50 per cent., while Banias, Káyaths, Dhúsars, &c., who now own one-fifth, have acquired it entirely under British rule. To sum up, then, the original colonists have lost rather more on the west than on the east of the Jumna. But the losses in the eastern parganahs have been spread over the whole period since the annexation; those in the western mostly took place early in our rule before the owners had realized the meaning of the new gift of ownership. Thus, at the present time it would be correct to say (writes Mr. Whiteway) that the village communities on the west have a stronger grip on the land than those on the east have.

Among the payers of revenue exceeding Rs. 10,000 annually (see list on p. 133), one only, Râja Ghansyâm Sinh, Jât, is recorded as having held his property at the annexation, and the remainder are stated to have wholly acquired theirs since that event. The number of country gentlemen (writes Mr. Growse) is exceptionally small. Two of the largest estates are religious endowments; the one belonging to the Seth's temple at Brindában, the other to the Gosáin of Gokul. A third is enjoyed by absentees, the heirs of the Lála Bábu, who reside in or near Calcutta. Rich city merchants and traders have acquired others during late years.

The most influential person in the district has for long past been the head of the great banking firm of Maui Rám and Lakshmi Chand. The present representatives of the firm are Banias, but the founder was a Gujaráti Brahman of the Vallabháchárya persuasion. His real name was Gokul Dás, but he is always referred to as Párikh Jí [H. *párah*, a tester (of coin)], that having been his official designation when holding the post of treasurer to the Gwáliár State. At his death, in 1826, the whole of his immense wealth

Leading families.

The Seths.

passed by his will to Mani Rám, one of his subordinate agents and a Jaini by religion, to the exclusion of the testator's only brother who was his nearest heir. The will was fiercely contested, but was upheld by the highest court of appeal. Mani Rám died in 1836, and the greater part of the property devolved on Lakshmi Chand, the eldest of his three sons, and the well-known Muttra millionaire. Lakshmi Chand died in 1866, leaving an only son, Raghunáth Dás; but the management of the affairs passed into the hands of his two uncles, Rádha Krishn and Gobind Dás. Under the influence of Swámi Rangáchárya, the latter became converts to Vaishnavism, and founded the great temple of Rang Ji at Brindában, committing it to the charge of their learned teacher. On Gobind Dás, who, at the death of Kishn Dás, became the recognized head of the family, was conferred on the 1st January, 1877, the Companionship of the Star of India, in recognition of his many public services. He survived to enjoy the honour only a few months, and left as his joint heirs, Raghunáth Dás mentioned above, and Lachman Dás, the son of Rádha Krishn. For many years past (writes Mr. Growse) the business has been mainly conducted by the head manager, Seth Mangi Lál, now largely assisted by his sons, Naráyan Dás and Sri Nivása Dás. The latter is an author and has published a Hindi drama, described as of some merit, entitled *Randhr and Premmohini*. Naráyan Dás is the manager of the Brindában estate; he received in 1880 a dress of honor from the Lieutenant-Governor at a public darbár held at Agra, in recognition of his services during the severe scarcity of 1877-79. The loyal behaviour of the three brothers, Lakshmi Chand, Gobind Dás, and Rádha Krishn, during the mutiny of 1857-58 will be mentioned in the account of that event. A list of the many other acts of loyalty and public beneficence due to this family cannot be given here; a few of the more important are mentioned by Mr. Growse (*Memoir*, pp. 15-16).

The families of the rajas of Mursán and of Háthras come of the same Ját families of Mursán stock and are Játs by caste. The present representative of the Mursán branch is the Rája Ghansyám Sinh already mentioned. The early history of both branches has been given at some length in the ALIGARH notice (Gaz., II., 429 *et seqq.*) There also the reader will find a genealogical tree, but the one given by Mr. Growse in the last edition (the 3rd) of his *Mathurá Memoir*, (p. 16), differs from the former in many particulars, and, as the more recent, is presumably the more correct. It will be sufficient here to remind the reader that the most prominent names in the two families since British occupation have been those of Thákur Dayá Rám of Háthras and Rája Bhagwant Sinh of Mursán. The power of the

former appears to have extended, in 1808, over Mát, Mahában, Sonai, Rája, Hasangarh, Sahpau and Khandauli ; that of the Mursán rája over Sa'dabad and Sonkh. The circumstances under which their possession, mostly in the nature of a farming tenure, ceased, have been given above in the fiscal history [see also Mr. Growse's *Memoir*, p. 17]. The good behaviour in the mutiny of Dayá Rám's son, Thákur Gobind Sinh, resulted in the restoration of the Háthras family to the high position it lost by Dayá Rám's rebellion in 1817. On Gobind Sinh the title of rája was bestowed, landed estates in Aligarh and Muttra districts conferred, and a sum in cash of Rs. 50,000 given. He died in 1861, and his widow, after his death, adopted Hari Náráyan Sinh, a distant relative of the rája's, to whom the title was formally continued by Government on 1st January, 1877, after a long course of litigation had resulted in the adoption being upheld. The residence of the family is at Brindában and is described as a handsome building.

Of the Mursán branch there is little to be said. The son of Bhagwant Sinh, Rája Tikam Sinh, was created a C.S.I., and died at a great age in 1878, when he was succeeded by his grandson, Rája Ghansyám Sinh.

The only other family that is honored with a detailed notice in Mr. Growse's *Memoir* is the Muhammadan one settled at Sa'dabad, and described as the only Muhammadan family of any importance in the district. It is a branch of the Láلكháni stock, which musters strongest in the Bulandshahr district. Mr. Growse (*Memoir*, p. 20) traces the history of the family back to Kunwar Pratáp Sinh, who joined Prithi Ráj of Dehli in his expedition against Mahoba. The eleventh in descent from Pratáp was Lál Sinh, on whom Akbar conferred the Persian title of Khán, whence the name 'Láلكháni.' His grandson embraced Islám in the reign of Aurangzeb, and the seventh in descent from that grandson, Nábar 'Ali Khán, joined his nephew, Dúnde Khán, in opposing the English, thereby forfeiting his estates, which were conferred on his relative, Mardún 'Ali Khán, in or about 1807 A.D. To a son of the Dúnde Khán just mentioned, Ranmast Khán, was given, it will be remembered (*supra* p. 119), the farm of Noh-jhíl parganah as a politic measure. Two others of his sons obtained villages in that parganah by purchase, but were driven out by the villagers in the mutiny, and, joining the rebels, their estates were confiscated after the restoration of order. The present head of the Sa'dabad family is I'timad'Ali Khán, but the widow of the last holder has possession of the estates for her life. They yield an annual income of about Rs. 48,569 and are spread over 26 villages. Several other members of the family own lands here ; among them

may be mentioned the Nawab Sir Fairs 'Ali Khán, K.C.S.I., who owns the village of Niman. The family retain the Hindu titles of Kunwar and Thakurani and still observe many old Hindu usages both in marriage and other social matters. The tendency, however, of the present generation is (writes Mr. Growse) to affect an ultra-rigid Muhammadanism.

"Of the smaller estates in the district," writes Mr. Growse, "some few belong to respectable old families of the yeoman type; others have been recently acquired by speculating money-lenders; but the far greater number are split up into infinitesimal fractions among the whole village community." Some of their smaller landholders are mentioned by name in Mr. Whiteway's *Settlement Report*, and it is unnecessary to extract all their names in these pages. The list, however, of all payers of revenue exceeding Rs. 10,000 is so short that space may be found for it:—

Tahsil.	Name of payer of revenue of Rs. 10,000 or upwards.	Caste.

Mention was made of the Lálá Bábú estate at the commencement of this heading and it appears twice in the above list. A word or two of explanation may be added to what The Lálá Bábú estate. was said in the caste notice (*supra* p. 81). The ancestry of Krishn Chandra Sinh, *alias* 'the Lálá Bábú,' is given at length by Mr. Growse (*Memoir*, p. 258), but scarcely concerns us here, as he was the first of his family to settle in the land of Braj, which he did at the age of 30, after having held office under Government in Bardwán and in Orissa. At 40 he renounced the world and led the life of a beggar for two years, at the end of which he was killed by a horse's kick at Gobardhan. But in the 10 years previous to his renunciation of the world, he had managed to buy up all the villages most noted as places of pilgrimage, in a manner which, writes Mr. Growse, "strikingly illustrates his hereditary capacity for business." The zamíndárs were induced to believe that his sole object was the strict preservation of the hallowed spots, and that the proprietors would remain undisturbed. Unfortunately for the latter these promises were not recorded, but the sales were. In this way 15 villages in Muttra and 72 in Aligarh and Bulandshahr were acquired by the Lálá Bábú, the prices paid being out of all proportion to their value at the time of purchase and from a half to a seventh of the annual revenue now paid. The gross rental of the lands in this district is estimated at present for Rs. 76,738 and the Government demand is Rs. 49,496. The present head of the family, who has lately been invested with the title of rája, in recognition of his father's liberality to various benevolent institutions in Calcutta, is Púrna Chandra Sinh of Paikpara, the grandson of the Lálá Bábú.

The following account of the relations between the old proprietors and the absentee landlord is given by Mr. Growse :—

"The miserable impoverished descendants of the old proprietors have a peculiar claim on the compassion of their new lord, but it has certainly never been extended to them. The estate is under the control of a European manager, who draws a handsome salary of Rs. 2,000 a month, apparently on the condition that this is to be the sole charge on the rental. He generally comes up once a year, not to ascertain the circumstances of his tenantry, for he never enters a single village, but simply to inspect the accounts of his sub-agents, and to keep them up to the mark in their rent collections. Every application for the slightest aid to the construction of a school, a well, a road, or any other local improvement, is summarily rejected ; and a stranger, without asking any questions, can easily recognize the rája's villages by their exceptionally forlorn and poverty-stricken appearance."

accepted as more than approximately correct. The complexity of the tenures in the district is evident from the foregoing account of them given in the Settlement Report (pp. 25-30). Space will not permit of reproducing that account and all that can be given here is a brief abstract.

In the *trans-dumna* taluk the most noteworthy tenures are those of the large *talukdar* of *rupa Ray*, *Ar-Lashkarpur*, *Madim*, *Sonb*, *rupa Sonb*, *Atra khara*, all in taluk *Madim*, and *Pineta* in taluk *Mat*. Reference to the fiscal history of these *talukdar* has been already made, and the reader will remember that in these we have the dual system of ownership that involves a settlement or sub-settlement with the under-holders, called *buradars*, who have a certain sum as an allowance to the *talukdar* over and above the Government revenue. We need not stay to define these terms, which will be found fully explained in the text-books (e.g., Mr. Field's *Landholding and the Relations of Landlord and Tenant*, pp. 512, 718, &c.; Mr. Baden Powell's *Land Revenue and Land Tenures of India*, p. 374, and Mr. Vincent Smith's *Settlement Officer's Manual*, pp. 25-30), further than to note the difference in the meaning of the term '*talukdar*,' as used in these provinces and in Bengal. In both localities the primary meaning 'dependent' is traceable in the use of the word. But in these provinces

the dependency is on the State, the *talúkdár* standing midway between it and the under-proprietors, called sometimes *zamíndárs*, but more usually (to mark the distinction between them and other proprietors where there is not one to share the ownership) *biswadárs*; while in Bengal the dependency is usually on the *zamíndár*. In other words, in Upper India the *talúka* is subordinate to the Sovereign or State; in Bengal it is usually subordinate to the *zamíndári*. [The exceptions do not concern us, but see Field's *Landholding*, p. 513, footnote.] We of course find among these under-proprietors distinctions in the modes of holding their lands *inter se* just as among proprietors where there is no *talúkdár*, and it is with these distinctions we are here concerned. A peculiarity about the under-tenures in these *talúkas* is the way in which they are intermingled. It is not uncommon to find all the several estates that make up a *talúka* claiming shares in the old parent village, often an uninhabited site (*khera*), which is, however, still remembered as the one that threw out the present separate villages as colonies. The explanation is found in the Ját tribal system. Theoretically, the shareholders are all the descendants of the founder of the estate. As these increased and multiplied it became necessary to extend cultivation, but the members of the brotherhood that went to occupy land at a distance, retained their share in the ancestral site. This feature is strongly marked (writes Mr. Whiteway) all over the district except in Kosi and the north of Chháta, where the Játs have, like their neighbours there, clung to large undivided villages.

The tenure we have been describing is that known as the *bhaiyáchára*; all the brotherhood, really or supposed to be descendants of a common stock, share in common, and all village measurements are effected with reference to a village *bígha* or *chak* composed of a varying number of village *bíghas* [see further *Settlement Report*, p. 39]. The other tenures in the trans-Jumna tahsils present no peculiar features, except, indeed, in a few villages in Noh-jhíl, where they resemble the tenures in the cis-Jumna tahsíl to which we now turn.

“Any attempt,” writes Mr. Whiteway, “to bring the tenures of the cis-Jumna tahsils within the accepted definitions of *zamíndári*, *pattídári*, and imperfect *pattídári*, would be very misleading.” He, therefore, divides them into *zamíndári* and *bhaiyáchára* and gives a very elaborate account of the latter class. In the same way that the pure *zamíndár* is a survival of the farmer or middleman of the period previous to our rule, the pure *bhaiyáchára* communities may be considered to be the survival of the old cultivating bodies that were always treated as having

tangible, though often badly-defined, rights in the soil. "In short," writes Mr. Whiteway, "the history of the idea of separate ownership in land in these communities, in this district at least, is the history of a gradual crystallization from the crude arrangement of each member of the brotherhood cultivating as much of the area as lay in his power." In only two villages does this arrangement apparently still subsist, but it can be traced in many others. The change to the modern system in which each member of the brotherhood is the owner of a definite share, based either on ancestral right or, if that is not known, on actual or recorded possession, can be traced through several stages, but all these stages are not found in every community. For their further elucidation the reader must be referred to the Settlement Report; but a curious case of estimating shares by ploughs, the village being taken as consisting of a certain number of ploughs, each plough being further subdivided into two bullocks and each bullock into four legs, may be noted as found in existence in some villages in Mát tahsil at the settlement preceding the one now current. Similar to this is a still living custom of paying the revenue on a certain number of wells, each well being divided into four runs, each run into four bullocks, &c.

Some of these peculiarities disappeared at the recent settlement, and the tendency is in the direction of defining the rights of individuals. The great advantage of the *bhaiyachára* system is the exclusion of all from sharing in the land that do not look to the actual cultivation for their profit; it is a buffer against the Bania and speculator in land.

Mere cultivating tenures in this district are simple enough; they are either occupancy or non-occupancy. It is usual to class among cultivating tenures that known as *sír*, but this is not a cultivating tenure properly so called, as the cultivator of *sír* is also the owner. He may, it is true, employ a sub-tenant called a *shikmí*, and to the last the term 'cultivating tenant' certainly applies. The statistics of area held by each class will be found in the settlement report for the period then dealt with, but it is clear that these figures are liable to great fluctuations and are perhaps not very trustworthy.

The payment of rent in this district appears to be everywhere in cash, no instance of payment in kind (*batái*) being mentioned in the Settlement Report. As regards the fluctuation in the all-round rent-rate before the current settlement no conclusions could be drawn for the cis-Jumna parganahs owing to the peculiarities of the tenures and the almost total absence of any real rent transactions. In the trans-Jumna

Rents.

parganahs Mr. Whiteway saw reason to think a rise of 25 to 30 per cent. had taken place in the 28 years preceding the commencement of the current assessment. [For details see *Settlement Report*, p. 88.]

The condition of the people at the present time as compared with past Condition of the culti- periods is a subject dealt with by Mr. Whiteway, but rating classes. the conclusions he arrives at are not very definite and are not easily summarized. His remarks were made with immediate reference to the successive famines that had visited the district. After noticing the circumstance that owing to the extension of irrigation better crops are grown now in greater proportion than formerly, he writes :—

“ From this it does not seem a rash deduction to assume that as the land has now to support a denser population, the better grains are more largely consumed by the bulk of the people. In their houses and in their clothes (except as far as the latter have been affected by the use of English cloth) the people are probably but very little changed. There is no industry in the district except some weaving of country cloth, which has been rather injured than otherwise by the trade in English manufactures. In the towns the people are chiefly either grain-dealers or landlords or money-lenders, who are dependent on the agricultural population, and whose prosperity varies with theirs; or else they are priests and *pandas* who live on the offerings of the faithful or on the gifts of pilgrims whom they accompany on the tour. To these latter the improved communications with the increased influx of strangers are an unmixed advantage.”

In connection with this subject of the condition of the cultivating classes, the increase in the number of occupancy tenants that Mr. Whiteway believes to have taken place is an important element. [See further in *Settlement Report*, p. 51.]

For the following account of the trade communications of the district we are indebted to Mr. J. B. Fuller, late Assistant Director of Agriculture and Commerce, North-Western Provinces and Oudh :—

Trade. “ The Muttra district is amply supplied with trade communications. The East Indian Railway barely touches the outlying corner of the district comprised in the Sa’dabad talsil, but a short line of light railway connects the city of Muttra with the Háthras road (East India Railway) station, and affords to it most of the advantages that result from a situation on the main provincial artery of commerce. The city is further connected with the Rájputána State Railway by another short line running to Achhnera, and when the two strips of railway are connected by a bridge across the Jumna—as they will be very shortly—and the Muttra-Háthras line is connected with the Cawnpore, Farnkhabad, and Kásganj light railway by the extension now under construction, the district will be traversed from west to east by a line of light railway that will place the city of Cawnpore in direct communication with the salt lakes of Rájputána. Six metalled roads diverge from the city of Muttra, connecting it respectively with Háthras, Jalesar (Etah district), Agra, Bhartpur, Díg, and Dehli. The river Jumna traverses the whole length of the district from north-west to south-east, as does also the Dehli and Agra canal, and the latter is connected with Muttra city by a still-water navigation

channel 7 miles in length. The railway traffic of the district is at present almost entirely transacted by the Muttra-Hâthras light railway [of which a brief notice has been given above, see p. 27]. During the calendar year 1881 its working expenses amounted to Rs. 95,632; its gross receipts to Rs. 1,35,354; and its net receipts to Rs. 41,702. The charges for interest on capital (at 4½ per cent.) amounted to Rs. 43,460; so that the net result was a loss of Rs. 1,753, an insignificant sum when contrasted with the undoubted benefit the line confers on the district and the facilities it gives to a large number of pilgrims to visit the many famous shrines and bathing ghâts. The line derives no less than 66 per cent. of its earnings from passenger traffic.

"During the same year (1881) the total amount of goods despatched from stations on the railway was 1,66,000 maunds; and the total amount of goods received, 6,33,000 maunds. This indicates very strongly the character of the traffic, which principally consists in import. The principal imports and exports were as follows:—

<i>Imports.</i>			<i>Exports.</i>		
Cotton goods	...	5,190 maunds.	Cotton	...	1,703 maunds.
Grain	...	2,03,538 "	Cotton goods	...	2,775 "
Sugar	...	57,990 "	Hides	...	2,068 "
Wood	...	12,955 "	Saltpetre	...	1,635 "
Coal	...	7,139 "			

"The total amount of the trade is, therefore, inconsiderable and does not amount to more than is ordinarily carried by a first-class metalled road in these provinces. It is almost entirely concerned with the city of Muttra and the railway has as yet had little or no effect on the traffic of the district as a whole.

"The only roads on which traffic has been registered are the Muttra-Dehli, the Muttra-Dig, and the Muttra-Bhartpur. For the former road two years' and for the two latter roads three years' statistics are available. The following summary has more than a temporary interest, as the statistics of road-traffic ceased to be collected after 1878-79, and consequently, until the registration is resumed, these will be the only ones available for gauging its extent:—

	Cotton.	Cotton goods.	Grains.	Metals.	Oil-seeds.	Provisions.	Salt.	Sugar.	Wood.	Miscellaneous.	Total.
<i>Muttra-Dehli road.</i>											
Towards Muttra—											
1877-78	...	29,340	130	10,14,886	18	29,628	1,531	86,798	9,506	36	4,400
1878-79	...	1,06,343	2,803	64,257	453	5,337	762	91,845	28,466	223	6,045
From Muttra—											
1877-78	1,324	36,522	907	12,685	37	1,630	20,850	711	46,100
1878-79	...	672	827	42,148	1,497	23,693	256	628	9,693	977	51,800
<i>Muttra-Dig road.</i>											
Towards Muttra—											
1876-77	...	52,437	131	25,208	...	719	1,219	1,52,653	...	1,921	3,229
1877-78	...	1,269	4	12,897	53	6,953	469	43,352	...	720	2,400
1878-79	...	36,803	29	2,930	140	5,029	408	606	611	4,664	2,257
From Muttra—											
1876-77	704	20,969	1,267	261	2,880	1	38,862	1,194	5,624
1877-78	39	14,391	862	358	331	3	14,048	102	7,945
1878-79	26	20,416	283	...	232	...	14,040	...	2,374

	Cotton.	Cotton goods.	Grains.	Metals.	Oil-seeds.	Provisions.	Salt.	Sugar.	Wood.	Miscellaneous.	Total.
<i>Muttra-Bhartpur road.</i>											
Towards Muttra—											
1876-77 ...	3,812	253	3,558	95	18	2,470	45,754	...	9,897	36,705	1,02,562
1877-78 ...	161	30	6,793	54	952	1,040	6,822	...	15,999	67,977	99,828
1878-79 ...	2,000	35	10,366	10	2,842	667	91	118	7,153	67,900	91,182
From Muttra—											
1876-77 ...	...	569	27,836	342	2,022	3,250	...	25,728	796	16,937	77,480
1877-78 ..	150	199	62,821	62	230	1,215	412	9,869	1,590	13,807	90,355
1878-79 ...	30	338	16,641	204	...	1,632	21	11,143	...	4,788	34,797

"The road connecting Muttra with Dehli is by far the most important of the three, and during the scarcity of 1877-78 was of enormous service to the district, since it offered a direct route for the barley and gram of the lower Panjáb, considerable stocks of which existed in Rewári, Bhiwani, and other towns. The most noticeable feature in the traffic of the other two roads is the decline in the import of salt, due to the closure of salt works in the Bhartpur State and concentration of operations at the Sambhar lake.

"The Jumna is greatly impeded by shallows during the greater part of the year, especially since the opening of the Dehli and Agra Canal, which abstracts a large portion of its water supply. It is scarcely used at all for traffic purposes, and the total amount of goods annually exported by means of it is said not to exceed 2,000 maunds. The Dehli and Agra Canal offers, however, an excellent water-way, since, although primarily intended for irrigation, navigation requirements were carefully considered in its construction. In the Muttra district there are wharves at Kosi, Aríng, and Chhota Kosi, but the traffic which they transact is wholly insignificant. The canal passes at a distance of some 7 miles from Muttra city, but is connected with it by a still-water navigation channel which was constructed at great expense, but has proved absolutely useless. It is reported to have been a 'failure from the first,' and the chickweed with which its surface is covered is rarely disturbed by the passage of a boat. Indeed, traffic on the whole canal between Dehli and Agra is disappointingly small, considering the expenditure incurred to attract it, including the cost of a still-water channel at Agra city, similar to the one at Muttra. During the year 1878-79 the total traffic carried down-stream by the canal only amounted to 74,110 maunds, and that carried up-stream to 1,20,427 maunds.¹ The Muttra district received 29,017 maunds from the Agra district (principally stone) and 3,765 maunds from the direction of Dehli. It despatched 21,028 maunds in the former and 8,877 maunds in the latter direction. The insignificance of the traffic carried by the canal is all the more remarkable from there being a considerable road traffic running parallel to it between the very places the canal connects. In 1877-78 (the famine year) the Agra-Dehli road carried 11,76,274 maunds towards Agra, and 1,20,666 maunds towards Dehli, registered at the point where it crosses the Muttra-Gurgaon boundary. In the same year the canal traffic only amounted to 76,097 maunds down-stream and 28,609 maunds up-stream. The road traffic was of

¹ Since this note was written later returns have been supplied, but they show no improvement in the traffic. For the half-year ending 30th September, 1881 and 1882, the total up and down traffic was only 1,36,412 and 73,107 maunds respectively (*Gaz., N.-W. P. and Oudh*, dated 26th May, 1883).

course considerably inflated by the excessive demand for grain in the Muttra and Agra districts, since in the following year it only amounted to—towards Agra 3,05,524 maunds; towards Dehli 1,31,992 maunds. But it is very remarkable that the canal attracted no portion of it. The principal obstacle to the increase of traffic on the canal is probably the fact that its head (at Okla) is separated from Dehli by some miles of difficult navigation on the Jumna, and if the canal could be connected with Dehli by a navigation channel, as it is with Muttra and Agra, there is small doubt but that the traffic would be enormously increased. At the same time it is somewhat extraordinary that there is not more local traffic carried by it between Agra and Muttra, which are separated by no break of canal."

There are no important mercantile enterprises of any kind and no manufactures conducted under European supervision in the district. The only local manufacture is that of weaving country cloth, referred to in a former paragraph, and the only industry other than agricultural is the stone-cutting mentioned in the notice of 'habitations.'

The principal fairs in the Muttra district are held in the places and on the dates given in the following statement.¹ Fifteen of these festivals are celebrated at the headquarters city, six at Brindāban, two at each of the holy places Gobardhan and Baldeo, and one at each of five other places:—

Place.	Parganah.	Date.	Average (approximate) attendance.	Name and object.
Muttra ...	Muttra ..	10th of bright half of Jeth (May-June)	10,000	Dasahra; to bathe at the Dasavamedh ghāt.
Ditto ...	Ditto ...	2nd of bright half of Asārh (June-July).	5,000	Rathjātra; dragging the cart of Jagannāth
Ditto ...	Ditto ...	11th of ditto	20,000	Jugal jori ki parikrama; principal perambulation of the city.
Ditto ...	Ditto ...	3rd of bright half of Sāwan (July-August).	5,000	Tij kā melā; to worship the Bhūtesvar Mahādeva.
Ditto ...	Ditto ...	5th of ditto	1,600	Panch tirath; a pilgrimage starts on the first day from the Visrānt ghāt for Madhuban; proceeds on the 2nd day to Santana-kund at Satoha and the Gyān bāoli near the Ka'ra; on 3rd day to Gokarnesvar; on the 4th day to the shrine of Garur Gobind at Chhatikra; and on the 5th day to the Brahm-kund at Brindāban.

¹ Kindly supplied by Mr. W. E. Neale, c.s. This list includes only the principal festivals. The total number is much larger and includes 33 for Muttra and 46 for Brindāban. A calendar of all these is given in Mr. Growse's *Mathurā*.

Place.	Parganah.	Date.	Average (approximate) attendance.	Name and object.
Muttra	Muttra	15th of bright half of Sâwan (July-August).	5,000	Salûno or Raksha-bandhan, 'tying on of armlets' wrestling matches.
Ditto	Ditto	8th of dark half of Bhâdon (August-September).	21,000	Janm Ashtami, 'Krishna's birthday'; a fast till midnight.
Ditto	Ditto	11th of bright half of ditto.	6,000	A special pilgrimage to Mad. ban, Tâlbân, and Kumadhâ. The general Ban-jâtra also commences and lasts for 7 days.
Ditto	Ditto	8th to 10th of bright half of Kuâr (September-October).	20,000	Râmfilâ; to witness the representation of the death and Meghnâd, Kumbha-Karn, and Râvan.
Ditto	Ditto	11th of ditto	20,000	Bharat milâp; to witness representation of the meetings at Ajodhya of Râma, Sita, and Lakshman on their return from Ceylon with Bharat and Satrugghna.
Ditto	Ditto	2nd of bright half of Kâr-tik (October-November).	35,000	Jam-Dôj; to bathe in the Jurna.
Ditto	Ditto	8th of ditto	3,000	Gochâran, 'pasturing the cattle.'
Ditto	Ditto	9th of ditto	50,000	Akhay-navami; the second great perambulation of the city.
Ditto	Ditto	10th of ditto	20,000	Kansbadh kâ melâ; to see the representation of Kans being killed by Krishna and Baladeva.
Ditto	Ditto	11th of ditto	20,000	Deotthân; perambulation on account of the awakening of the god from his 4 months' slumber.
Brindâban	Ditto	11th of bright half of Phâlgun (February-March).	5,000	Phûldol; processions with flowers and music and dancing.
Ditto	Ditto	2nd to 10th of dark half of Chait (March-April).	50,000	Brahmotsav; festival at the Seth's temple lasting 10 days.
Ditto	Ditto	15th of bright half of Jeth (May-June).	5,000	Gaj-graha kâ melâ; to witness the representation of a fight between an elephant and a crocodile in the tank at the back of the Seth's temple.
Ditto	Ditto	9th of bright half of Sâwan (July-August).	3,000	Fair at the Brahm-kund.
Ditto	Ditto	8th of bright half of Bhâdon (August-September).	3,000	Râdhâ Ashtami; Râdhâ's birthday.
Ditto	Ditto	5th to 11th of bright half of Pûs (December-January).	2,600	Dhanur-mas Otsav; to witness the procession issuing from the Vaikunth gate.
Satoha	Ditto	6th of dark half of Bhâdon (August-September).	2,500	To bathe in the Santana-kund.
men down dated 25	Ditto	1st of bright half of Kâr-tik (October-November).	2,000	Annakût; distributing food to the poor.

Place.	Parganah.	Date.	Average (approximate) attendance.	Name and object.
Gobardhan...	Muttra ...	15th of bright half of Asārḥ (June-July).	20,000	Byās Purno; worshipping the Guna and perambulation of the Giri Rāj or sacred hill.
Ditto ...	Ditto ...	10th of bright half of Kārtik (October-November).	80,000	Dipmalikā, illumination of the sacred hill.
Ādhā-kund,	Ditto ...	8th of bright half of ditto.	5,000	Abhaya Ashtamī; childless compels bathe in the ponds (Rādhā-kund and Krishna-kund) in hopes of issue.
arsana ...	Chhāta ...	6th to 15th bright of half of Bhādon (August-September).	5,600	Budhi līla; to witness the exploits of Krishna and Rādhikā.
otlari ...	Ditto ...	1st to 9th of bright half of Chait (March-April).	3,400	Devi pūjā; to worship the goddess of small-pox.
tao ...	Mahāban ...	6th to 8th of dark half of Bhādon (August-September).	1,500	Baldevaji kā melā, birthday of Baldeva.
Ditto ...	Ditto ...	From 15th of bright half of Aghān (November-December) to 2nd of dark half of Pūs (December-January).	3,600	Baldevaji kā melā; perambulation of the temple and prayers for fulfilment of wishes.

In the following table will be found the average rate¹ of hire paid during different years of the past quarter century¹ to the various classes of artisans and labourers:—

Class of artisan or labourer.	Average daily wages of the year.		
	1858.	1867.	1882.
Blacksmiths ...	Ānas 4 to 5	Ānas 5	Ānas 4 to 5
Stone-cutters ...	" 4	" 4½ to 5	" 5
Carpenters ...	" 3 to 4	" 4 to 5	" 4 to 5
Masons ...	" 3 to 4	" 4 to 5	" 4 to 5
Tailors ...	" 3 to 4	" 3 to 4	" 4
Shoemakers ...	" 3 to 4	" 3 to 4	" 3 to 4
Bearer (kahār) ...	" 2 to 4	" 3 to 4	" 3 to 4
Thatchers ...	" 3	" 3½ to 4	" 4 to 5
Porters ...	" 2	" 2 to 2½	" 2½
Diggers (beldār) ...	" 1½ to 2	" 2 to 2½	" 2½
Coolies ...	" 1½ to 2	" 2 to 2½	" 1½ to 2½
Weeders ...	" 1½	" 2½ to 3	" 2 to 3

¹ For the years 1858 and 1867 these are taken from a return published in Mr. Flowden's *Wages and Prices*; those for the present year have been supplied by the Collector.

The above are mere averages. Female labourers are paid slightly less, and half-grown lads get two-thirds of the full rate of wage.

There are two sets of prices in this district: those that govern transactions in the open market or the *bázár* prices, and those that govern transactions between grain-dealers and producers or the harvest prices. Between the two there must necessarily be a difference representing the profit to the grain-dealer and the cost of carriage to the market. So much profit is perfectly legitimate; but the grain-dealing class composes a guild or fraternity that not only admits no outsider but monopolizes the money-lending or banking trade as well. The members, be they Banias or zamíndárs, can compel the producer, who lives solely by the advances they grant him, to bring his produce to their shops and thus prevent him from getting the full open market value for his goods. The cultivator is, therefore, not only crippled by the heavy interest he has to pay, but also by the low prices he is compelled to take for his produce.

We have in Mr. Allen's *Jalesar Settlement Report*, dated 25th March, 1836, a statement of harvest rates for wheat and barley for the years 1813-34, and Mr. Whiteway in his report quotes these and also those obtaining among the Bajna Banias for six of the chief staples of the district—wheat, barley, gram, and *bejhar* (barley and gram mixed) for the spring crops, and cotton, *juár*, and *múng* for the autumn crops—for the years 1835-76. These harvest rates are settled on the 3rd of the light half of Baisákh for the *rabi* that has just past, and on the 10th of the light half of Kuár for the *kharif* to come. These he considers to be fairly representative of the prices obtainable by the cultivators generally. Omitting exceptional years, viz., those of the famines and scarcities of 1813, 1818 to 1820, 1825 to 1827, 1837-38, 1860-61, 1868-69, and the mutiny of 1857-58, the average prices of three periods have been as follow, the figures showing sers and fractions of a ser for the rupee :—

		Wheat.	Barley.	Gram.	<i>Bejhar</i> .	Uncleaned cotton.	<i>Juár</i> .	<i>Múng</i> .
1st period,	1814-1837	... 41·4	59·0	...	...	...	...	...
2nd "	1837-1857	... 39·4	58·2	48·7	53·8	17·1	46·9	42·8
3rd "	1857-1876	... 26·7	35·8	33·5	35·4	10·0	33·8	32·5

The rise of prices in the third period (1857-76) has been 55 per cent. for wheat and 65 for barley on the prices obtainable in the first period (1814-37); and 45 per cent. for gram, 52 for *bejhar*, 71 for uncleaned cotton, 38 for *juár*, and 31 for *múng* on the prices of the second period (1837-57).

The rise in prices in the second period was very small; taking wheat, it has never been, in fact, so cheap during the whole time as it was in 1850, during

this second period. In no year since the mutiny has wheat been cheaper than 40 sers for the rupee, whereas it was so in 13 years before that time. In only five years since the mutiny has it been cheaper than 30 sers for the rupee, whereas in only one year before that time, not being an exceptional year, was it so dear. The low rise in the price of *kharif* grains, especially *mung*, is noteworthy, for they are but little exported, and their price is not so affected by improvements in the means of transport as the *rabi* grains.

Market rates. Taking the same three periods, the average bázár prices for three principal commodities have been—

					Wheat.	Gram.	Barley.
1st period, 1814-37	...	...	...	...	32.5	43.5	47.9
2nd „ 1837-57	...	...	...	...	32.0	37.5	...
3rd „ 1857-76	...	...	...	...	22.8	28.3	...

The average price of barley for the two last periods cannot be given. It will be noticed that here, again, the rise in prices during the second period was very small, almost the whole rise being confined to the last term. Comparing the prices that have ruled since the mutiny with those before the great famine, we find that wheat has risen 42 per cent. in price, and gram 53 per cent. “In this district, therefore,” writes Mr. Whiteway, “the cultivator is not only getting his share in the rise of prices generally, but is also gradually forcing the Bania to give him a better price for his produce; for, whereas bázár rates have risen for wheat only 42 per cent., the harvest rates have risen 55 per cent. The difference between harvest rates and bázár rates for this grain was 27 per cent. for the first period, 23 per cent. for the second, and only 17 per cent. for the third. It must take time for the benefits of the competition in the export trade to filter down to the cultivator, guarded and hedged round as he is by custom and long-standing obligations, but in a longer or shorter time it must reach him. The harvest prices of cotton in this district during the American war are instructive in the extreme as showing how the Bania's hand must be forced by a stimulated market. As the general result of this investigation it is proved that the whole rise in prices has been since the mutiny, and that, as compared with last settlement, the cultivator can now get 50 per cent. more all round for his produce.”

During the severe scarcity of the years 1877-79 that followed the last of the periods we have been considering, there was a corresponding rise in the prices of all kinds of food-produce. These have been recorded for each of the principal commodities for each month of the period from June, 1877, to May, 1879, in an appendix to the *Report on the Scarcity and Relief Operations in the North-*

Western Provinces and Oudh during these years. The highest prices of each of the commodities reached in any month were as follow :—

Wheat.	Barley.	Common rice.	Bājra.	Juār.	Gram.
S. c. 10 12	S. c. 12 0	S. c. 8 8	S. c. 7 0	S. c. 7 0	S. c. 12 0

Prices have slowly recovered with the favourable harvests of recent years, and the following figures will serve to show their present state :—

	Wheat.	Barley.	Common rice.	Bājra.	Juār.	Gram.
	S. c.	S. c.	S. c.	S. c.	S. c.	S. c.
Price for fortnight ending 15th October, 1882.	17 12	25 8	14 0	24 0	24 0	25 0
Price for fortnight ending 15th March, 1883.	17 0	24 8	15 0	23 0	25 0	25 0

The rates of interest charged vary greatly, but averages may be given as follow : (1) between bankers themselves, from 6 to 9 per cent.; (2) in large transactions between bankers and private individuals, where jewels and similar kinds of movable property are pledged, from 6 to 12 per cent.; (3) when land is mortgaged as security, from 9 to 18 per cent.; in small pawnbroking transactions, from 12 to 15 per cent.; (4) ditto on personal security, from 18 to 37½ per cent.

The Government ser of 2·057lb. and its sub-divisions are in general use in the towns and larger markets, but local weights are also used, which vary in different parts of the district

Weights and measures.

and for different commodities. No statement of these has been prepared, but the account given in the AGRA notice will suffice to show how difficult, if not impossible, it would be to give an accurate account of them. Nor would it be of much interest or value, as on the few occasions when the reader might require to know them he would find it safer to consult the local authority for the time being. The only measure that need be mentioned is the *Mah*, and that only for the purpose of noting that it has ceased to be used in official records, its place having been taken by the English acre. During the late settlement operations the *pattāris* (village accountants), and also the *zambādars* and cultivators, are stated to have become familiarized with the new measure and with the rates of rent reckoned upon it (see Mr. Smith's Settlement

Officer's Manual, p. 324). It may be mentioned that the 'Government' *bigha*, as it was called, measured 2,756·25 square yards, and that 1·7560 such *bighas* went to the acre, the same indeed as in Agra and Farukhabad.

The chief items that make up the district receipts and expenditure will appear from the appended statement of them for a recent year, kindly furnished by the Accountant-General, North-Western Provinces and Oudh. It should be observed, however, that only those items that come under what are technically called "service" heads are entered. These form the substantive accounts of the Government of India, but in addition there are "debt" heads, including accounts of sums repayable by or to Government, such as deposits, loans, &c., that do not directly affect the financial resources of the district :—

Heads of receipts.		1880-81.	Heads of charges.		1880-81.
		Rs.			Rs.
Land revenue	...	15,83,523	Interest on funded and unfunded debt.	...	8,992
Excise on spirits and drugs ¹	...	40,281	Interest on service funds and other accounts.	...	...
Assessed taxes	...	62,680	Refunds and drawbacks	...	7,133
Provincial rates	...	2,79,299	Land revenue	...	1,61,284
Stamps	...	86,251	Excise on spirits and drugs	...	2,557
Registration	...	15,649	Assessed taxes	...	60
Post office	...	...	Provincial rates	...	...
Minor departments	...	1,441	Stamps	...	1,064
Law and justice	...	6,806	Registration	...	6,069
Jails	...	1,152	Post-office	...	3,963
Police	...	4,532	Administration	...	...
Education	...	12,271	Minor departments	...	1,845
Medical	...	14	Law and justice	...	21,942
Stationery and printing...	...	233	Jails	...	8,788
Interest	...	302	Police	...	1,29,835
Receipts in aid of superannuation, retired and compassionate allowances.	...	...	Education	...	27,879
Miscellaneous	...	3,164	Ecclesiastical	...	3,546
Irrigation and navigation	...	3,492	Medical services	...	8,227
Other public works	...	16,980	Stationery and printing	...	1,085
			Political agencies	...	...
			Allowances and assignments under treaties and engagements.	...	604
			Superannuation, retired and compassionate allowances.	...	24,804
			Miscellaneous	...	1,077
			Famine relief	...	...
			Irrigation and navigation	...	...
			Other public works	...	1,499
			Loss by exchange on transactions with London.	...	13
Total	...	21,18,070	Total	...	4,22,266

The position of the district as regards the recent measure of decentralization may be briefly stated. Muttra is one of the few districts in which a balance (Rs. 5,750) is shown

¹ Includes gross receipts on account of sale proceeds of opium.

after deducting from the receipts derived from the local cess the total amount of charges under the various heads of general establishment, education, medical institutions, village watchmen, and public works. The details of normal expenditure were approximately stated in Resolution No. 3 of 1882, dated 13th April, 1882, and published in the local gazette as follow :—

Balance of local cess available for local expenditure after deducting further rate and percentage for canals and railways.	DEDUCTIONS ON ACCOUNT OF GENERAL ESTABLISHMENT, &c.						Total.
	a.	b.	c.	d.	e.	f.	
	District dák.	Lunatic asylums.	Inspection of schools.	Training schools.	District sanitation.	Department of Agriculture and Commerce.	
Rs. 1,56,960	Rs. 6,080	Rs. 1,960	Rs. 4,370	Rs. 980	Rs. 390	Rs. 1,560	Rs. 15,280

Balance available for expenditure under local control.	EXPENDITURE UNDER LOCAL CONTROL.				
	a.	b.		c.	Total.
	Education.	Medical charges.		Village watchmen.	
		(1)	(2)		
		Hospitals and dispensaries.	Vaccination.		
Rs. 1,41,680	Rs. 26,390	Rs. 5,260	Rs. 1,610	Rs. 58,240	Rs. 91,500

Surplus available for local public works.	PUBLIC WORKS EXPENDITURE.							
	Normal items (local control).				Original works and special repairs (figures for 1882-83), variable item (local control).	Arboriculture grant (figures for 1882-83), variable item (local control).	Total.	Surplus.
	a.	b.	c.	d.				
	Maintenance of local civil buildings, roads, and bridges.	Allotment for petty works.	District establishment made over.	Total.				
Rs. 50,180	Rs. 31,280	Rs. 3,000	Rs. 8,350	Rs. 42,630	Rs. 300	Rs. 1,500	Rs. 44,430	Rs. 5,750

The surplus of Rs. 5,750 shown above will be liable to be decreased by the fluctuating grants for original (local) public works, and for arboriculture, and also by the debit of certain items, such as the cost of collections of local rates, cost of existing local funds establishments in district offices, and repairs to *saráis*, none of which was included in the statement just given, the precise details not being available.

Municipal funds are not included in the statement of receipts and expenditure, as the taxes that provide them are levied for local purposes. Details of municipal income and expenditure are given in the accounts of the three municipalities, Muttra, Brindában, and Kosi. Their aggregate income, in 1881-82, was Rs. 92,524; and their aggregate expenditure, Rs. 86,443. The income and outlay of the house-tax towns—14 in number (*viz.* Kámar, Chhátá, Shergarh, Sahár, Gorbardhan, Sonkh, Farah, Mát, Ráya, Mahában, Gokul, Baldeo, Sa'dabad, and Sahpau)—will be found under the separate notices of them.

The actual assessment of the income of the district at six pies in the rupee, calculated upon profits exceeding Rs. 500 for the purposes of the income-tax of 1870 during 1870-71 was Rs. 1,13,921; and the number of persons assessed, 2,846. The assessment in 1871-72 was Rs. 35,217; and the number assessed 1,745. In 1872-73, they were Rs. 26,762 and 738 respectively.

The license-tax, levied under Act II. of 1878, yielded, in 1881-82, a gross sum of Rs. 57,865; and after deducting the cost of collection, the net produce of the tax, according to the official report, was Rs. 53,415. The incidence of taxation per thousand of the total population was, in towns with population exceeding 5,000, Rs. 181; and the number of persons taxed per thousand, 7: while in smaller towns and villages it was only Rs. 74·4; and the number taxed, 3 in a thousand. Judged by net collections Muttra ranked 4th in the North-West Provinces in 1880-81 and in 1881-82.

Excise collections are now made under Act XXII. of 1881 (repealing Act X. of 1871) and Act I. of 1878, and may be shown for five years as follows:—

Year.	License fees for vend of opium.	Still-head duty.	Distillery fees.	Fees for license to sell native or English liquor.	Drugs.	Madak and chandu.	Tári.	Opium.	Fines and miscellane- ous.	Gross receipts.	Gross charges.	Net receipts.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1876-77	...	2,608	4	5,007	7,026	406	...	29,829	5	44,685	4,225	40,660
1877-78	877	2,939	5	2,600	5,840	205	...	26,626	1	39,091	3,827	35,264
1878-79	3,267	1,767	7	5,971	7,000	413	30	24,762	40	43,257	3,865	39,392
1879-80	3,516	2,481	7	3,523	6,000	382	...	17,194	19	33,122	2,826	30,296
1880-81	3,533	2,539	6	3,800	6,367	402	...	16,888	31	33,566	2,993	30,573

For excise matters the district is divided into two sections, the 'distillery' tract and the 'farmed' tract, the boundaries of which vary from year to year. Excluding Muttra and Brindāban towns, the incidence per head of excise taxation in 1881-82 was '68 of a pice in the whole district, being 2·12 pices in the 'distillery', and '44 pices in the 'farmed' tract. This points to a low rate of consumption of native liquor, but the position of the district bordered to a great extent by native territory and including within its boundary several Bhartpur villages where excise laws are unknown, favours smuggling, and it cannot be doubted that much smuggling from the latter takes place. An interesting account of excise matters in this district, and an account of the method of distilling native liquor, will be found in Mr. Cruickshank's report on the administration for the year 1881-82 published in the annual departmental report for that year.

Stamp duties are collected under the Stamp Act (I. of 1879) and Court-fees Act (VII. of 1870). The following table shows, for the same period as the last, the revenue and charges under this head :—

Year.	Hundi and adhesive stamps.	Document stamps.	Court-fee stamps.	Duties, penalties, and miscellaneous.	Total receipts.	Gross charges.	Net receipts.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1876-77 ...	2,751	17,497	59,958	46	80,252	1,401	78,851
1877-78 ...	1,606	22,054	58,518	518	82,726	1,703	81,023
1878-79 ...	2,461	21,476	61,049	15	85,001	1,584	83,417
1879-80 ...	2,600	22,280	60,080	155	75,095	1,482	73,613
1880-81 ...	2,536	22,820	60,846	49	85,251	1,636	83,615

In 1880-81 there were 7,591 documents registered under the Registration Act (XV. of 1877), and on these fees (and fines) to the amount of Rs. 9,960 were collected. The expenses of establishment and other charges amounted during the same year to Rs. 5,041. The total value of all property affected by registered documents is returned as Rs. 15,42,092, of which Rs. 12,71,303 represent immovable and the remainder movable property.

Connected with the subject of judicial receipts and expenditure is the number of cases tried by the civil, criminal, and revenue courts. For the two last this amounted in 1880 to 3,441, of which 1,894 were decided by criminal and 1,547 by revenue courts. The local civil courts are the munsiffs of Muttra and Mahāban, but for purposes of civil jurisdiction the district is included with Agra, and separate statistics of civil cases affecting this district cannot be readily obtained.

The medical charges are in great part incurred at one central and two branch Medical charges and dispensaries. The first is at Muttra and the others at sanitary statistics. Brindában and Kosi. These branch dispensaries are both of the second class. The total district expenditure on dispensaries was in 1881 Rs. 5,924, of which 55·9 per cent. was defrayed by government, the rest being paid from municipal funds, interest on investments, and subscriptions. The total number of patients, both in-door and out-door, in 1881, was 26,993, and included 2 Europeans, 66 Eurasians, 22,723 Hindus, 4,147 Musalmáns, and 55 of other classes. The average daily attendance was 199·98, and the ratio per cent. of men 59·33, of women 19·28, and of children 21·39. At the central dispensary 50 major operations (3 on the eye) were performed.

In the year 1869, when cholera was epidemic in many districts of the North-Western Provinces, Muttra did not suffer so much as some others. The disease was not prevalent till June, when it appeared in several places simultaneously. The number of deaths was 1,060, giving a percentage of ·13 to the total population. After two years of comparative freedom, the people were again in 1872 troubled by cholera in an epidemic form, but the deaths were less than and in 1872. a third of those in the preceding epidemic ; the worst months were May, July, August, and September.

Muttra was one of the ten districts that suffered, in 1872, from the epidemic prevalence of the dengue form of fever, a novelty among the diseases of these provinces. The other districts were Mirzapur, Benares, Gházipur, Allahabad, Jaunpur, Cawnpore, Agra, Aligarh, and Meerut. The disease is highly contagious, and was probably brought into the district by pilgrims from Agra. It was first seen in the city of Muttra on the 24th August, and about the same time it was known to prevail at Brindában. It spread with great rapidity through the city, whole families being simultaneously laid low by it. The European regiment suffered considerably, and about half the inhabitants of the civil station were affected. No case occurred in the jail. The epidemic continued until the end of November. In the villages near the city the disease prevailed to a considerable extent ; but little is known of its prevalence in more remote parts of the district. Attacks of dysentery and bronchitis, as *sequellæ* of dengue, were very often observed. No deaths are recorded as having occurred directly from dengue in this district.

In 1875 cholera again visited Muttra, but not in a very severe form. The months in which it was epidemic were May, June, July, and September.

Cholera in 1875.

In 1878 Muttra headed the list of districts showing excessive fever mortality; this mortality was recorded principally in the later months of the year, but was continued into the following year. Local enquiry seemed to show that the disease was malarial fever, present in an epidemic form for the first time within the memory of the existing generation.

Vital statistics.

The principal causes of mortality during the five years 1877-81 may be shown in tabular form as follows :—

Year.	Fever.	Small-pox.	Bowel complaint.	Cholera.	Injuries.	Other causes.	Total.	Proportion of deaths to 1,000 of population.
1877 ...	8,725	230	1,593	30	255	612	11,445	14.48
1878 ...	38,394	579	3,116	359	420	1,044	43,912	55.57
1879 ...	45,991	2	1,321	293	401	385	48,343	61.18
1880 ...	15,225	2	629	57	273	378	16,564	26.19
1881 ...	13,342	...	672	25	264	681	14,984	25.33
Average ...	24,335	162	1,466	153	323	610	27,049	37.62

The following is the account of native medicine given by a former Civil Surgeon :—" There are very few indigenous drugs, vegetable or mineral, found in the district. The native practitioners (*kabirdj* or *baid*) do not, except in emergent cases, use mineral substances; and of these the principal are arsenic, mercury, iron, gold, silver, and their preparations. The principal medicines resorted to by the *baid*s are compounds of several vegetable medicines. The true base of the compound, which contains generally no less than a dozen constituents, is unknown to them. *Cocculus indicus* is a favourite medicine with them in fevers and it is seldom used alone. Opium forms the key-stone of all astringents used. *Aconite ferox* is the safeguard of native practitioners in Bengal in remittent and other severe cases of fever. The system of treatment adopted may be described as conservative and expectant."

The statistics of vaccinations for the year 1881-82 are as follows :—

Vaccination.

Average number of vaccinators employed, 15; total number of persons successfully vaccinated, 14,492;

total cost, Rs. 1,616.

History.

A brief history of the parganah sub-divisions of the district from the reign of Akbar to the present time has been given in the first part of this notice. It was there shown that

according to the *Ain-i-Akbari* the parganahs which now form part of the district were divided between three of the *sarkárs* of the Agra province (*súba*). On our acquisition of the district (1803-1806) these parganahs were scattered amongst three British districts. It was not till 1832 that they were united into one district under the name of Muttra. Nor, as we have seen, have later changes been wanting; in 1874 Jalesar parganah was transferred to Agra, compensation being, however, given in 1878, when 84 villages were annexed to this district from the Farah tahsil of Agra. In attempting, therefore, to sketch the history of the Muttra district we are at once confronted by the difficulty of deciding where that history can properly be said to begin. Strictly speaking, perhaps, the date of its constitution as a district, just given (1832), might be accounted the proper point of departure; in that case there would be very little to record under the head of "history," and that little would be chiefly occupied with the mutiny period. But to limit ourselves thus would be to ignore many valuable records which throw considerable light upon the mediæval history of the tract which is included within the limits of the present district. An attempt will, therefore, be made to bring together the scattered references which have come down to us, premising that it is not so much a history of the district, but rather of its constituent elements that is being given.

The local traditions of the district name the Kalárs as the original occupants of the country, who, like the Bhars, Soiris, Oherús and other supposed non-Aryan races elsewhere, are connected with ancient forts and tanks, and are said to have been dispossessed by different Rájput tribes. But it is difficult to determine who these people really were, whom the Játs and Rájputs found in possession when they first settled here. Nor are there any certain traditions regarding the mode and period of their settling that can be laid hold of to re-construct the early history of the district.

The most famous legends are those connected with Krishna. The story of that tutelary divinity of Braj, over which Mr. Growse has thrown a literary charm that some may think it scarcely possesses in the original, is profoundly interwoven with the local nomenclature, as it is with the religion and the every-day life of the people. But it is rarely possible to extract authentic dates from old Hindu legends, and whatever substratum of historical truth may underlie the Krishna myths, it would be unsafe at the present stage of our knowledge to propound any definite theory regarding them. It may be mentioned, however, that 1000

B.C. has been assigned as the approximate date of the Great War in which Krishna took part; and although Krishna's enemy, Kansa, cannot well have been a Buddhist¹ as some have surmised, and therefrom have deduced the theory that the religious persecution attributed to Kansa refers to the conflict between the Buddhists and the Brahmans, it is quite possible that Kansa may have been a Jaini, for the antiquity of the Jain religion is now completely established. Or, rejecting this theory, the story may symbolize a struggle between the votaries of Siva and Vishnu.

Kansa is introduced to us in the legends as the usurping king of the Kansa, a mythical king of Jádavas, whose capital city was Mathurá; he had Mathurá, deposed his own father Ugrasen, and, relying on the support of Jarásaudha, king of Magadha, his father-in-law, ruled the country with a rod of iron. Krishna, who was a cousin of Kansa the usurper, but had been brought up in obscurity, headed a revolt which was successful, and Kansa was slain. Jarásandha then marched an army against Mathurá for the purpose of avenging Kansa's death. He was assisted by some powerful western king, probably (according to Mr. Growse) Gonanda I.,² king of Káshmir. The result of this invasion was that Krishna with the whole clan of Yádavas abandoned Mathurá, retiring to the bay of Kachh, where he founded the city of Dwáraka, which was at some later period submerged in the sea. He subsequently slew Jarásandha in battle, but was unable to regain the throne of Mathurá. Mr. Growse is of opinion that the legends regarding Krishna's boyish frolics at Mathurá and Brindában, which now alone dwell in popular memory, are comparatively modern inventions, probably not earlier than the 16th century, as there is no allusion to them in the *Mahábhárat*, or 'history of the Great War.'

Leaving the reader who desires to acquaint himself with these legends to find all he can wish in Mr. Growse's Memoir, we pass on to consider what glimpses of Muttra history can be obtained from the passing references in the early histories, and from the living testimony of ancient monuments still, or till recently, in existence.

References to Muttra in the early chronicles and histories.

¹ If we accept the usual chronology, Buddha, the founder of the religion, died B.C. 543. This is the date doubtfully given in the Imperial Gazetteer, IV., 247. But, as elsewhere noted in that work (p. 285), there are 14 different accounts accepted by the northern Buddhists, ranging from 2422 to 546 B.C. The southern Buddhists agree in starting from the 1st of June 543 B.C. as the day of Buddha's death. This latter date is usually accepted by European writers. General Cunningham makes it 478 B.C. (*Corpus Inscriptionum Indicarum*, p. 7), and Mr. Rhys Davids, 412 B.C. (*International Numismata Orientalia*, pp. 38-56). ² The question is discussed fully in Mr. Growse's *Muthurá*, where he points out that in Sanskrit *Yavana*, which forms the second part of this king's name as given in the legend (Kála Yavana), besides the primary meaning of *Yanda* (Ionia), denotes, secondarily, any foreign country.

How far the neighbourhood of Muttra was known to the Greeks has been much discussed. General Cunningham (*Ancient Geography of India*, p. 374) writes : "The city is noticed by Arrian [*Indica*, VIII], on the authority of Megasthenes, as the capital of the Súrāsēni.....According to Arrian, the Súrāsēni possessed two great cities, Methoras and Klisoboras, and the navigable river Jobares flowed through their territories. Pliny [*Nat. Hist.*, vi., 19] names the river Jomanes, that is, the Jumna, and says that it passed between the towns of Methora and Clisobora. Ptolemy mentions only Mathura, under the form of Modura, to which he adds the city of the gods or holy city." The General is inclined to identify Brindában with the Klisoboras mentioned above. But Mr. Growse points out that the present Brindában dates only from the reign of Akbar and that there is no ground whatever, either legendary or archæological, for believing that the site had ever been inhabited at any earlier period. He identifies Clisobora—probably a Greek corruption of *Krishna-pura*—with Mahában, which is known to be a place of great antiquity and which is only separated from Mathurá by the Jumna, thus agreeing with Pliny's description. Arrian's date is given as about 140 A. D. and the Súrāsēni are described by him as a people specially devoted to the worship of Hercules, who may be identified with Balaráma, the brother of Krishna. As an evidence of the Greek occupation of Muttra, General Cunningham has kindly furnished the following brief note of a recent discovery that he has made, of which a fuller account will be given in a forthcoming volume of his survey. [It was received after the part of this notice dealing with 'archæology' had been printed] :—

"During one of my researches in 1882 amongst the heaps of fragments lying about Mathurá, my notice was attracted to a half-size life figure, which, with the aid of some bricks and mud, formed one side of a trough for watering cattle. On removing the bricks and mud and washing the stone, I found to my surprise and delight that the figure was that of Herakles strangling the Nemæan lion. As this group could not have been made for the use of the Hindus, whether Brahmans or Buddhists, it follows as a matter of absolute certainty that it must have been sculptured by some foreign artist for the use of Greeks, resident in Mathurá. I have already noticed in my account of the sculptured balusters of the Bharhut gateways that the superior excellence of the execution, coupled with the presence of an Arian letter on each of the balusters of the gateway, pointed to the employment of some foreign artists on this work. Now here at Mathurá I have found another proof of the employment of a foreign artist, who, in this particular instance, must have professed the Greek

religion, as the group of Herakles strangling the Nemæan lion appears to be a direct copy of some Greek original. The head of Herakles is unfortunately wanting; but the pose and muscular development of the body are infinitely superior to any purely Indian sculpture that I have seen. Herakles has his left arm wound about the lion's neck, while with his right he is raising the club, which appears behind his back, to strike a blow. The raised arm is also gone. The lion is rather a weak animal. The group is not cut in the ground, but is an alto-relievo with a rough back, and has apparently formed one side of an altar.

"In the early part of the present year (1883) I found a colossal male figure at the village of Parkham to the south of Mathurā, which from its inscriptions appears to be as old as the time of Asoka, or about B. C. 250. I found also a fragment of a Buddhist Railing Pillar, with an inscription in beautifully formed Asoka characters, exactly like those on the well-known monoliths at Dehli and Allahabad. The pillar was the gift of a woman named Amogha Rakshita."

Earlier sculptures found in the district had been supposed to be of Greek origin, and to represent Bacchanalian scenes with supposed Greek monuments. Greek figures and accessories. Mr. Growse, while admitting that "it is an established historical fact that Mathurā was included in the Bactrian empire" has decided, after an exhaustive examination of the later sculptures, that they do not warrant the conclusion that they were the work of any but Indian artists. But it would be out of place to discuss here the disputed questions of Greek occupation, or rather perhaps whether we have at present any certain relics thereof, for, as already noted, there seems no dispute that the Greco-Bactrian dominion extended thus far. A passage from the *Yuga-Purāna* of the *Gargi Sanhitā* (circ. 50 B. C.), cited by Mr. Growse [*Mathurā*, p. 108], not only attests the reduction of Panchāla and Mathurā, but speaks of an advance as far as Patna (Pātali-putra).

Of the next conqueror of Northern India, the Indo-Scythians, we have more certain monuments in Muttra. Inscriptions bearing the names of Kanishka, Huvishka, and Vasudeva, well-known Indo-Scythian kings, have been found, showing that their dominions probably extended thus far, and opening up an interesting question regarding the early connection between Muttra and Kāshmir. The Kushana dynasty, to which Kanishka belonged, was apparently first established in 24 B. C. and lasted until about 220 A. D. The extent of their rule may be judged from the existence of their inscriptions westwards from Pinjar, in the Yusafzai country, to the celebrated Manikyala tope, and eastwards, as far as Muttrā (see "Indo-Scythian coins, with Hindi Legends," by E. Theman, *Ind. Ant.*, XII, 7).

After the extinction of this dynasty a century of darkness follows, regarding which nothing is known, and then the Gupta A. D. 319 to 480 dynasty, whose initial date is usually given as 319 A. D., is heard of. The Guptas lasted for five generations, till 480 A. D., when the Vallabhis took their place as rulers.

During these early monarchies the State religion was generally Buddhism, and most of the monuments of Buddhist character found in the district (*vide supra*, 'Archæology,' p. 89) probably date from this period. We are not dependent solely, however, upon these for our knowledge of Muttra during Buddhist times. There is mention made of it in contemporary writings. These are the often quoted narratives of the Chinese pilgrims.

When Fah-Hian visited India, about 400 A.D., he found a kingdom of Mathurá, with a capital of the same name on the Jumna, the first that he entered in Central India. The Chinese pilgrims. Buddhism was the established religion, and in the capital, where he rested a whole month, there were 20 monasteries and 3,000 monks. There were, moreover, six relic towers or *stupas*, all of which are fully described by the Chinese traveller. Two hundred years later Buddhism had considerably decayed, but even then, a later pilgrim, Hwen Thsang, in 634 A.D., reckoned 2,000 resident monks in the 20 monasteries, and there were seven towers containing relics of the principal disciples of Buddha. The description he gives of the kingdom is as follows:—"This kingdom is 5,000 *li* (833 miles) in circuit; the capital has a circuit of about 20 *li* (3½ miles). The soil is rich and fertile, and the people devote themselves solely to agriculture. The mangoes, which they vie with each other in planting, form a kind of forest. Although all these trees bear the same name, their fruits are distinguished under two names. The smaller are green when they commence to grow, but become yellow when they are ripe; the larger sort, on the contrary, always keep green. Fine cotton of various shades is obtained from this country. The climate is hot; the manners of the people simple and honest. The inhabitants love to show kindness in order to obtain happiness. They revere virtue and esteem study. There are a score of convents, with 2,000 monks, who study both the great and the little *Vehicule*. There are but five temples of the gods. The heretics dwell together confusedly, &c., &c."¹

A monastery, said to have been built by the venerable Upagupta, is described by Hwen Thsang as situated about a mile and a quarter to the east of the town, on a hill. Mr. Growse thinks that the extensive mound known as

¹ Translated from the *Si-ya-ki* quoted in Julien's *Histoire de la vie de Hwen Thsang*, p. 421 (Paris, 1853).

the Kankáli or Jaini Tīla may possibly be the site of this monastery (see *Mathurá*, pp. 104-116). This pilgrim took much pains, on his return to China, to describe the 128 different kingdoms he had visited or of which he had received authentic information.

It may be gathered from the geographical description given of the Mathurá kingdom that it included the eastern half of the modern district, some small part of Agra, and the whole of the Shikohabad and Mustafabad parganahs of Mainpuri (see Mr. Growse's *Mathurá*, p. 4). General Cunningham gives the boundaries differently, making the ancient kingdom extend over the whole present district of Muttra and also over the native states of Bhartpur, Királi, and Dholpur, and the northern half of the Gwáliár territory (see *Ancient Geography of India*, p. 373). It is hardly necessary to say, however, that local tradition is absolutely silent regarding this ancient kingdom, nor have we any further information about it than the meagre description of Hwen Thsang. When he visited it, Buddhism was, as we have seen, on the wane; and, when the curtain next rises, after a lapse of close on 400 years of utter darkness as regards history, Buddhism had, if Firishta may be believed, entirely disappeared, its place being taken by the ancient religion of Brahmanism. The original authorities, however, leave the point open (see Mr. Growse's *Mathurá*, p. 33).

The next mention of Muttra, and the first authentic contemporary record that we find in Indian literature, is connected with the ninth invasion of Mahmúd of Ghazni in 1017 A. D. The passage in Firishta describing the sack of Muttra is well known to English readers through Colonel Briggs's translation (*Hist. of the Muh. Power in India*, I., p. 59), but what is not, perhaps, so well known is the fact, pointed out by Mr. Growse (*Mathurá*, p. 32), that the original historian of Mahmúd's campaigns, Al 'Utbi, from whom Firishta and later writers drew their materials, mentions neither Muttra nor Mahában by name. He describes certain localities, which have been identified as those places by Firishta and the rest. The passages in Al 'Utbi's *Tárikh-i-Yamini* which are referred to have been translated by Sir Henry Elliot in his *History of India* (II., pp. 44-45). In the one that is supposed to describe the capture of Muttra, we read :—

"The Sultán [Mahmúd] then departed from the environs of the city, in which was a temple of the Hindús. The name of this place was *Mahuratu-l-Hind*. He saw there a building of exquisite structure, which the inhabitants said had been built, not by men, but by genii, and there he witnessed practices contrary to the nature of man, and which could not be believed but from evidence of actual sight. The wall of the city was constructed of hard stone, and two gates opened upon the river flowing under the city, which were erected upon strong and lofty founda-

tions, to protect them against the floods of the river and rains. On both sides of the city there were a thousand houses, to which idol temples were attached, all strengthened from top to bottom by rivets of iron, and all made of masonry work ; and opposite to them were other buildings supported on broad wooden pillars, to give them strength.

" In the middle of the city there was a temple, larger and firmer than the rest, which can neither be described nor painted. The Sultán thus wrote respecting it :—' If any should wish to construct a building equal to this, he would not be able to do it without expending a hundred thousand thousand red *dirhams*, and it would occupy two hundred years, even though the most experienced and able workmen were employed.' Among the idols there were five made of red gold, each five yards high, fixed in the air without support. In the eyes of one of these idols, there were two rubles of such value that if any one were to sell such as are like them, he would obtain fifty thousand *dirhams*. On another there was a sapphire purer than water and more sparkling than crystal ; the weight was four hundred and fifty *miskáls*. The two feet of another idol weighed four thousand four hundred *miskáls*, and the entire quantity of gold yielded by the bodies of these idols was ninety-eight thousand three hundred *miskáls*. The idols of silver amounted to two hundred, but they could not be weighed without breaking them to pieces and putting them into scales. The Sultán gave orders that all the temples should be burnt with naphtha and fire and levelled with the ground."

The passage which is supposed to refer to Mahában describes the Sultán as marching against the fort of Kulchand, " who was one of the leaders of the accursed Satans, who assumed superiority over other rulers, and was inflated with pride. * * * When he saw that the Sultán advanced against him in the endeavour to engage in a holy war, he drew up his army and elephants within a 'deep forest' ready for action" (Elliot's *History*, II., p. 43). Mr. Growse suggests that the words "deep forest" in this quotation may be intended as a literal translation of "Mahában." The passage proceeds thus : " The Sultán sent his advance guard to attack Kulchand, which, penetrating through the forest, enabled the Sultán to discover the way to the fort. * * * The infidels, when they found all their attempts fail, deserted the fort and tried to cross the foaming river which flowed on the other side of the fort, thinking that beyond it they would be in security ; but many of them were slain, taken, or drowned in the attempt. Nearly 50,000 were killed and drowned and became the prey of beasts and crocodiles. Kulchand, taking his dagger, slew his wife and then drove it into his own body. The Sultán obtained by this victory 185 powerful elephants, besides other booty."

After its destruction by Mahmúd the city drops out of history for about

Blank in the history for 300 years, and Mr. Whiteway thinks that during this 300 years after 1017 A.D. period the country round remained under the power of the Mewátis, a robber tribe whose head-quarters were in the present district of Gurgáon. The Mewátis were subdued, according to the same writer, by the Dehli emperors early in the 15th century. But we hear nothing defi-

nite concerning the city till the time of Sikandar Lodi (1488-1516 A. D.), who is described in the *Tárikh-i-Dáúd* of Abdulláh (a writer in the reign of Jahángír), as having "entirely ruined the shrines of Mathurá, the mine of heathenism, and turned their principal Hindu places of worship into caravan-serais and colleges" (see Elliot's *History*, IV., 447). The country round long remained a wilderness. Until Sher Sháh, the Afghán emperor, made his road from Agra to Dehli with *sardís* at every stage, travellers between those cities could not venture through the Muttra jungles, which were the haunts of many robbers, but passed through the Doáb. (*Zubdat-ut Tawárikh*, in Elliott, VI., 188). In fact the Muttra jungles were in existence until much later and were the favourite hunting-grounds of the Agra emperors. Of their exploits in them there are many stories. Abul Fazl tells as one of Akbar's miracles that he mastered there with his eye an infuriated tiger about to spring upon a favourite servant. Jahángír records how his empress, the famous Núr Jahán, killed a tiger here with one ball fired from an elephant unsteady through fear. And, late as 1634, Sháh Jahán killed four tigers in the Mahában jungles on the opposite side of the river.

During the period of Muhammadan supremacy the history of Muttra is almost a total blank. "The natural dislike of the ruling power," writes Mr. Growse, "to be brought into close personal connection with such a centre of superstition divested the town of all political importance; while the Hindú pilgrims, who still continued to frequent its impoverished shrines, were not invited to present, as the priests were not anxious to receive, any lavish donation, which would only excite the jealousy of the rival faith." From the time of Mahmúd's invasion in 1017 A. D. to the accession of Akbar no building of any architectural pretensions was erected, at any rate neither the remains nor the tradition of any such have come down to us; and it is only from the time when Játs and Marhattas gained the ascendancy that any continuous series of monuments exists.

During Akbar's tolerant reign the places sacred to Hinduism began again to flourish, and it was at this time that the chief Brindában and Gobardhan temples were built. Jahángír continued to some extent his father's policy. But in the reign of Sháhjahán, in 1636, persecution was once more resorted to; one Murshid 'Ali Khán, holding the rank of 'commander of 2,000 horse', was appointed governor of Muttra and Mahában, with express instructions to root out all rebellion and idolatry. To Aurangzeb, however, belongs the unenviable distinction of carrying persecution to extreme lengths; so far, indeed, did his bigoted hatred of everything Hindu lead him that, besides demolishing the most sacred shrines, he

attempted to destroy even the name of the city by ordering that it should henceforth be known as Islámpur or Aslámabad, 'the abode of the True Faith.'

It was at Muttra, in 1658, that Aurangzeb treacherously seized his brother Murád preparatory to sending him to the fortress of Salíngarh and afterwards to that of Gwáliár, where the unfortunate prince was murdered. In 1668, a local rebellion roused the fanaticism of Aurangzeb, and led to the destruction of the famous Kesava Deva temple, built at a cost of thirty-three lákhs in the reign of Jahángír. The iconoclast emperor died in 1707, and from his death may be dated the rapid decline of Muhammadan power. Shortly after that event the Játs of Bhartpur appear on the scene as rulers of Muttra and its immediate neighbourhood.

Whether the robber chief, Chúrámání, who founded the present royal house of Bhartpur, actually ventured on hostilities against Aurangzeb himself has been disputed, but there is no doubt that shortly after the emperor's death he had acquired such strength as to make it necessary for the Saiyid ministers at Dehli to commission Jai Sinh of Amber to reduce the Ját freebooters. Forts at Thún and Sinsini, two villages a little south of Díg, were the strongholds of the Ját chief, and from these marauding expeditions were organized. Jai Sinh failed in his first attempt to capture these places, but returning with a larger army and a rival of Chúrámání's, in the person of Badan Sinh, his younger brother, Thún was taken after a siege of six months, Chúrámání and his son Mukkam driven from the country, and Badan Sinh was proclaimed leader of the Játs, under the title of Thákur.

Badan Sinh built for himself a handsome house at Sahár, by which he is chiefly remembered. During the later years of his life he retired altogether from public life, his eldest son SúraJ Mal administering all the Ját principality except a small portion consigned to a younger son, Pratáp Sinh. The career of SúraJ Mal, who, on his father's death, assumed the title of rája and fixed his capital at Bhartpur, belongs to general history. In 1748 he was invited by the emperor Ahmad Sháh to join with Holkar, under the command of the Wazír, Safdar Jang, in suppressing the revolt of the Rohillas. Later we find him allied with Safdar Jang in the trial of strength between that minister and Gházi-ud-dín, who had similarly called in the aid of the Marhattas. In this SúraJ Mal found himself deserted by his patron and left to bear the brunt of battle against Gházi-ud-dín. Bhartpur was besieged (1754), but a change of emperors at Dehli drew off the attention of the successful minister.

In 1757 Muttra was plundered by Sardár Jahán Khán, who had been despatched by Ahmad Sháh Duráni to collect tribute from the Ját territory. Not only was all its wealth taken, but a wholesale massacre of the inhabitants was carried out. The following account of this transaction, taken from the *Táríkh-i-Ibráhím Khán* (Dowson's Elliot, VIII., 265) is, perhaps, of sufficient interest to be quoted :—

" Ahmad Sháh Abdáli, in the year 1171 A. H. (1757-58 A.D.) came from the country of Kandahár to Hindústán, and on the 7th of Jumáda-l-awwal of that year had an interview with the emperor 'Álamgir II. at the palace of Sháh Jahánábád ; he exercised all kinds of severity and oppression on the inhabitants of that city, and united the daughter of A'azzu-d-dín, own brother to His Majesty, in the bonds of wedlock with his own son, Timur Sháh. After an interval of a month he set out to coerce Rájá Súraj Mal Ját, who, from a distant period, had extended his sway over the province of Agra, as far as the environs of the city of Dehli. In three days he captured Balamgarh, situated at a distance of fifteen kos from Dehli, which was furnished with all the requisites for standing a siege and was well manned by Súraj Mal's followers. After causing a general massacre of the garrison, he hastened towards Mathurá, and having razed that ancient sanctuary of the Hindús to the ground, made all the idolaters fall a prey to his relentless sword. Then he returned to Agra, and deputed his commander-in-chief, Jahán Khán, to reduce all the forts belonging to the Ját chieftain. At this time a dreadful pestilence broke out with great virulence in the Sháh's army, so that he was forced to abandon his intention of chastising Súraj Mal, and unwillingly made up his mind to repair to his own kingdom."

In 1759 Súraj Mal joined the confederacy formed by Gházi-ud-dín, the chief minister of the emperor, to oppose the second invasion of the Duráni ; but at Pánipat, in 1761, he judiciously withdrew his forces before the battle, and taking advantage of the absence of the imperial army and the Marhattas, fell suddenly upon Agra and took the fort and city. Here Súraj Mal had fixed his residence. His end was a tragic one, worthy of his career. He was amusing himself in the chase with only a small personal retinue when he was surprised by a flying squadron of the imperial army, against which he was advancing to measure his strength. He was slain and his head placed on a horseman's lance as a standard ; the main body of the Ját army coming up shortly afterwards under Jawáhir Sinh, was so shocked at the sight that it turned and fled. This was in 1764.

Jawáhir Sinh succeeded Súraj Mal ; his short reign of less than two years was remarkable only for his quarrels with Jaipur, ending in a desperate conflict in 1765, in which almost every chieftain of note was killed. Jawáhir himself was shortly afterwards murdered at Agra. Ratn, who succeeded Jawáhir, had a still shorter reign and also died by the hand of an assassin. His brother Naval Sinh became nominally regent for his infant nephew Kesari, but was virtually rája. In 1768 the Marhattas invaded Bhartpur to levy tribute. We next find the Játs, under

Ranjit Singh, brother and successor of Naval Singh, mixed up in the intrigues between Najaf Khán and Zábíta Khán. They unluckily espoused the unsuccessful cause of the latter. Their garrison was ejected from Agra, after having held it for 13 years. This was followed by a pitched battle at Barsána between Najaf Khán and the Játs. The infantry of the latter were commanded by Walter Reinhard, better known as Sumroo, but the fortune of the day declared in favour of the Imperialists. The Játs were completely defeated, but managed to secure a retreat to Díg. In March, 1776 Díg itself was reduced, the Ját garrison escaping to Kumbhír. The spoil taken is said to have been worth six lákhs of rupees. The whole of the Ját territory was now reduced to subjection, and it was only at the intercession of the Ráni Kishori, the widow of Súraj Mal, that the conqueror allowed Ranjit Singh to retain the fort of Bhartpur with an extent of territory yielding an income of nine lákhs.

From 1776, the year of the expulsion of the Játs, until 1782, the district remained nominally subject to the Dehli emperor, but really formed a part of the *quasi*-independent fief of Najaf Khán. That great minister died in 1782, and Sindhia, the most powerful of the Marhatta chief, was recognized as his successor in the administration of the empire.

From the expulsion of the Játs in 1776 to the commencement of Marhatta rule, 1782.

Marhatta rule ends 1803.

Muttra was one of Sindhia's favourite residences. It is unnecessary to recapitulate here the history of the final break-up of the Dehli empire, or to do more than refer to the atrocities of Ghulám Kádir, which received their just punishment at the hands of Sindhia. During this eventful period the Muttra district was continuously under Marhatta administration, and remained so until the defeat of Daulat Ráo Sindhia and the treaty of Sirje Anjangún signed on the 30th December, 1803. By that treaty most of the present Muttra district passed under British rule and Muttra itself became a military station on the line of frontier, which was then definitely extended to the Jumna. In the war with Sindhia Ranjit Singh, the Ját rája, had rendered assistance to Lord Lake, the British commander, and in return he now received a part of the districts of Kishangarh, Katháwar, Rewári, Gokul, and Sahár. The loyalty of Ranjit Singh did not, however, last long; he espoused the cause of Holkar, who had fled for refuge to the fort of Bhartpur. Bhartpur stood a memorable siege, but Ranjit made overtures for peace which were accepted on the 4th May, 1805. Under the new treaty the parganahs granted him in 1803 were resumed.

Ranjit died in 1805 and was succeeded by Randhír, his eldest son, who was succeeded in 1822 by his brother Baladeva. After 12 months Baladeva died, leaving a son Balwant.

Ranjit's successor.

years of age. His cousin Durjan Sál rebelled and for a time usurped the throne, but was ultimately deposed by the British Government. After Bhartpur had been stormed on the 15th January, 1826, by Lord Combermere, Balwant was restored and reigned until 1853, when he was succeeded by his only son, Jaswant Sinh, the present sovereign. The history of these successors of Ranjít Sinh has little direct connection with the Muttra district, but the above brief notice of them is given to complete the account of Ját rule.

The district of Muttra, in fact, from 1803 to 1857, enjoyed a period of uninterrupted peace. In the latter year it came in for a share of the troubles that then arose, and a brief account of the chief events of that time that concerned this district may now be given. This account is taken mainly from the official narrative by Mr. Mark Thornhill, C.S., who was magistrate of Muttra at the outbreak of the Mutiny. Mr. Growse has given many particulars not mentioned by Mr. Thornhill, and his narrative is altogether a clearer and more concise account of the course of events than the official ones are; however, the reader who desires can consult Mr. Growse's account (see *Mathurá Memoir*, pp. 46-49). It has been deemed best to follow strictly in these pages Mr. Thornhill's narrative, leaving the reader to supplement it from that given by Mr. Growse.

The history of the great Rebellion of 1857 is a short one as regards Muttra, which, notwithstanding its proximity to Agra and Dehli, shared to a small extent only in the events that then occurred. In the following account the narrative will be mainly confined to the recital of events that happened in the Muttra district. It will be seen that these covered a very much shorter space of time than similar events elsewhere, and that British authority rudely overthrown in May, 1857, was definitely restored early in November of that year.

On the 14th May, 1857, Mr. Mark Thornhill, the magistrate, received information from the magistrate of Gurgáon that the mutineers were approaching the district; this was confirmed in the evening by letters from various European gentlemen on the customs and railway establishments in the north of the district. The ladies and non-combatants were immediately sent off to Agra, about thirty-five miles distant. During the next and following days no certain information was received, but the European gentlemen and others in Gurgáon and the north of the Muttra district came in, bringing very alarming rumours of the approach of the rebel army. From all that could be learnt it was believed to be marching down with the intention of attacking Agra. At this time the military force at Muttra consisted of a company of one of the Agra regiments (the 41th), and

it had been arranged that another company of the same regiment and one also of the 67th should be sent thither, partly to relieve the old detachment and partly to bring away the bulk of the treasure.

On the 16th of May, 1857, Captain Nixon arrived at Muttra with the

Muttra is occupied by
the Bhartpur army.

Bhartpur army and took command of the station. Their arrival, though it alarmed the sepoy, did something to restore the general confidence. Captain Nixon, in a letter dated 17th May, attributes the alarm just mentioned to his having thoughtlessly driven up to the treasury-guard, whereupon the sepoy turned out in a dreadful fright. He writes: "The fact is they thought they were going to be attacked, as I had of course an immense *sawárí* following me. I was put in a very ticklish position, and had to send back my *sawárí*, as I saw the sepoy commencing to load; however, they immediately stopped all hostile demonstrations on my turning the *sawárí* back, and we went and reassured them and made them present arms. The fact is that my people had evidently been threatening them, and they thought that their time had come. I am glad for one or two reasons that this has happened—*firstly*, because it is now quite clear to me that our sepoy and the troops of the native states will never coalesce; and *secondly*, because they are now frightened by an enemy from another quarter." In the sequel, of course, the first assumption was proved to be an entire mistake. It was believed that the foreign contingent was to be trusted, but, according to Kaye, it was merely a question, to be determined by some accident as to which should be the first to rise. The event proved that in the race of rebellion the foreign and British sepoy were destined to achieve something like a dead heat. (Kaye, III., 240.)

The next day or the day following Captain Nixon's arrival it was ascer-

Effect of rebellion else-
where felt at Muttra.

tained that the rumours of the approach of the rebels were false. Captain Nixon then resolved to march towards Dehli, with the view apparently of opening the communication between Dehli and Agra, and of co-operating with the Commander-in-Chief. The news of the insurrection and the proclamation of the king of Dehli had now become known among the native population, and the country immediately became disturbed, the disturbances consisting chiefly of attacks on Baniyas and the ejectment of new zamindárs by the old. There were six and a quarter lákhs of treasure in the treasury, under a guard of a company of one of the native infantry regiments at Agra. From the manner of the men and from private information he received, Mr. Thornhill thought them mutinous and so wrote to Agra. He also strongly recommended the treasure being sent into Agra.

and had carts ready waiting at the office to send it on, but unfortunately his recommendation was not attended to until too late.

On the 19th May, Captain Nixon marched out towards Dehli, accompanied by Mr. Thornhill. He marched slowly, making long halts. A detachment had been left behind for the protection of the city. A large number of new police had also been raised, and some attempt was made to raise new *sawárs*, but with very little success.

The great protection of the city at this time consisted in the Seths Rádha Krishn and Gobind Dás, who raised a large body of men at their own expense, and by their influence kept the other inhabitants quiet. They also lent Captain Nixon two brass guns. Mr. Clifford, the joint-magistrate, was left behind in charge of the station, but was compelled by illness to leave almost immediately. His place was taken by Mr. Dashwood, who was accompanied by Mr. Elliot Colvin as assistant magistrate.

On the 23rd May, Mr. G. F. Harvey, the commissioner of Agra division, joined the Bhartpur troops, accompanied by several other European gentlemen. On the 25th May the troops reached Kosi, and next morning marched on to Hodal (a small town lying between Muttra and Dehli, thirty-seven miles north of the former and only sixty from the latter), where they halted. Hodal being in the Gurgáon district, Mr. Thornhill remained at Kosi, and a detachment of about 300 Bhartpur infantry and two guns were left with him under command of one of the chiefs named Raghunáth Sinh, the guns being those lent by the Seths.

The disturbances in the district had meanwhile been increasing both in number and enormity. Kuar Dildár 'Ali Khán, a large zamíndár in parganah Mát, was murdered by his villagers. On the 23rd of May, Umráo Bahádur, a relative of his, who had estates in parganah Noh Jhíl, had been besieged in his house, but on the approach of our force the villagers had retired, and he made his escape. Several other murders and outrages were committed.

On the 29th May Mr. Thornhill went to Chháta. In the evening Mr. Dashwood, Mr. Colvin, Mr. Gibbon, and Mr. Joyce (the last the head-clerk of the magistrate's office) arrived and informed him of the mutiny of the treasury guard. It seemed that the guard had been relieved by another company from Agra, and orders had been received to send in the treasure under their escort. The treasure was packed, placed on the carts, and ready to start, when a shot was heard outside, followed by a rush of sepoys into the office, firing at the Europeans. All, however,

Mutiny of treasury guard at Muttra on 29th May.

escaped and ran towards the city, where they procured horses and rode out. Mr. Burlton, commanding the detachment, had been outside with the guard, and it was feared had been shot, and two of the clerks (both named Hashman) had got separated from the rest of the party in the flight to the city. Mr. Thornhill presumed that the mutineers had marched towards Aligarh; but, as a precautionary measure, he sent out *saukars* along the Muttra road to gain intelligence. In about two hours they returned with the news that the mutineers were approaching. Mr. Thornhill and his party immediately started for Captain Nixon's camp. In passing through Kosi Mr. Thornhill sent for Raghunáth Singh, but he refused to come, or to admit him into his camp, and further declined to give up the Seths' guns.

The whole party reached Captain Nixon's camp about day-break, but Captain Nixon's force that officer did not credit the report of the approach of the mutineers. He, however, sent out a party to reconnoitre, and about 9 o'clock the intelligence was brought that the mutineers were really approaching Kosi. Captain Nixon then made preparations for opposing them, on which the whole force broke out in open mutiny and turned their guns upon the Europeans. The latter fled, Mr. Thornhill and Mr. Joyce back to Muttra, and Mr. Harvey and the rest of the party towards Sona. On their arrival at Muttra about three in the morning Mr. Thornhill and Mr. Joyce found the station burnt and deserted. They proceeded on to Agra in the hopes of obtaining assistance. The news of the mutiny had spread with great rapidity; the whole country had risen almost instantaneously and the two fugitives were fired at from several villages. After many narrow escapes they reached Agra; but, as no assistance could be given from that place, they returned the following evening to Muttra and put up in the Seths' house in the city, who received them most kindly. There they found the two clerks, who, as already mentioned, had got separated from the party on the first flight from the station. The next morning Mr. Thornhill visited the office and found it burnt, and Mr. Burlton's body lying in a ditch in the compound. It was buried on the spot as well as could be done.

The following outline of occurrences at Muttra after the mutiny of the 29th May was gathered by Mr. Thornhill from many sources.

Occurrences at Muttra after the 29th May, 1857. When the treasure was laden, Mr. Burlton, who commanded, gave the word to march; the *sabáddar* said "Where?" "To Agra of course" was the reply. On this a shout arose "No, to Dehli, to Dehli." Mr. Burlton exclaimed "You traitors" (*be-tmán*). On this a sepoy standing close by fired his musket at him; the ball passed through his

chest; he fell off his horse and apparently died instantly. The sepoy then set fire to the office and the flames were the first notice the Europeans in the station had of the mutiny. They instantly left and all succeeded in making their escape to Agra. The sepoy marched off with the treasure, first sending a detachment to release the prisoners in the jail. Before leaving, they burnt two bungalows besides the office, but did no other damage in Muttra itself. On the road, however, they burnt all the Government buildings they passed, the zamíndárs of all the villages along the road joining and assisting them. On reaching Kosi, Raghunáth Sinh, although he had a larger force and two guns, allowed them to pass. The sepoy carried off only the five lákhs of treasure packed on the carts. A lách and a quarter in copper coins, uncurrent rupees, &c., besides several thousand rupees in cash and jewels, deposited by the Europeans in the treasury for safety, were left behind. As soon as this fact was known the whole city, headed by the *kotwal* and the Bhartpur detachment, flocked down to plunder it, and continued to do so till the flames drove them out. From plundering they commenced fighting; about thirty men were killed and the greatest confusion prevailed. Mr. Burlton's body was meanwhile stripped and thrown into the ditch, where Mr. Thornhill found it. The next afternoon all the villagers from miles round poured into the station, which they plundered and burnt.

As the news spread the country rose, so that by the time Mr. Thornhill returned, after the mutiny of the force at Kosi, the whole district was in a state of anarchy. The police and revenue establishments were everywhere ejected, or, if permitted to remain, were allowed to do so on mere sufferance. The Banias were plundered, new proprietors ejected and murdered, and the king of Dehli proclaimed. From the Seths' house Mr. Thornhill could see the villagers fighting across the river, and as soon as his return was known, they sent to threaten the Seths if they did not eject him. The villagers on both sides of the river were disposed to plunder the city of Muttra, and commenced collecting men from Bhartpur and elsewhere for the purpose.

As no assistance could be expected from Agra, Mr. Thornhill prepared to make the best defence he could. He had the city
 Defence of the city. barricaded; raised extra police; and adopted other measures, in all of which he was ably assisted by the Seths. In fact, but for their assistance and that of some others of the wealthier inhabitants, he could not have remained. The temper of the inhabitants generally was that of pronounced hostility to the Government. Mr. Thornhill, as soon as he felt strong enough, sallied out, burnt some of the neighbouring villages, and caught several of the men who had been active in plundering the station. The

want of any authority to punish them was a serious drawback, and the majority of the prisoners were released.

On the 14th June the Kotah contingent under Captain Dennyss arrived, and next day marched to Rāya on the Aligarh road, where the villagers were in arms under one Debi Sinh, who had proclaimed himself rāja. Mr. Thornhill accompanied the force, on the approach of which the villagers dispersed. By the good management of Captain Dennyss the ringleader, Dobi Sinh, was taken and hanged. Authority to punish rebellion seems now to have been generally assumed.

The force remained at Rāya for some days tranquillizing the country. About seven other persons were taken and hanged and many more flogged. The outrages committed by the insurgents had been very great; the town of Rāya had been completely plundered; the very houses dug to pieces in search of treasure; and the grossest outrages perpetrated on the females of some of the Banias. The confusion and anarchy of the country exceeded belief, for, in a circle of only a few miles, at least five or six zamīndārs had declared themselves independent, had assumed the title of rāja, and had proclaimed the king of Dehli. In one instance a single village split into two factions, proclaiming rival authorities. The impression that the English rule had ceased seems to have been universal, while a month previously the country had been in profound tranquillity.

As it was very uncertain how long the Kotah contingent would remain, Mr. Thornhill submitted a scheme to the Lieutenant-Governor for preserving order. This he proposed to do through the large zamīndārs, by conferring on them extensive powers and, where practicable, appointing them to the office of tahsildār. This scheme was sanctioned and carried out, producing the best effect. The Kotah contingent returned to Muttra on 20th June, and on the 22nd marched to Sa'dabad. Mr. Thornhill accompanied it, leaving Mr. Dashwood, who had returned from Sona, in charge of the station. At this time they returned to live in the station, a bungalow having been repaired for their use. Mr. Thornhill remained at Sa'dabad for several days, and owing to the vigorous measures that had been adopted, tranquillity was found to be tolerably restored in the portion of the district east of the Jumna, with the exception of Noh Jhil. The western and northern parts continued disturbed. Passive resistance, however, to the Government, which was exhibited in the refusal to pay revenue, was more formidable, because more difficult to deal with than the former active opposition. As all the ordinary means of realizing it were impracticable, the Lieutenant-Governor directed that contumacious refusal to pay should be treated as rebellion and punished with confiscation. Several villages

were accordingly confiscated at various times, but these were usually also guilty of open rebellion and outrages.

On the 29th June the Kotah contingent was ordered to proceed towards Agra, and on the 2nd July the detachment of the Gwáliár contingent stationed in the Aligarh district mutinied. Mr. Thornhill was compelled to return from Sa'dabad to Muttra, and on the evening of the 5th July he received intelligence that the Gwáliár contingent had crossed the Chambal and was advancing on Muttra, while the Nímach mutineers had started from Fatehpur Sikri in the direction of Agra. The former news eventually proved to be false, but the situation at Muttra was now very dangerous, with the rebel armies on both sides of the river. Mr. Thornhill and his party, therefore, determined to fly to Agra. He and Mr. Joyce rode disguised in native dresses, and succeeded in making their way, through the rebel army, into the fort at Agra. The whole road was lined with escaped prisoners, and the glare of the conflagration at Agra was visible three miles from Muttra. The rest of the party went by water, and came in safely a day or two afterwards, but they had been fired at by the villagers on both sides of the river and compelled to leave the boat.

The Nímach mutineers marched to Muttra, where they were received by the inhabitants with open arms. The Seths had fled, leaving their manager Mangi Lál behind, and it was through this man's excellent management that the city was preserved from being plundered. After remaining a few days the mutineers went on to Dehli. When the burning of Agra was known, all the country round Sa'dabad rose, headed by one Deokaran, and plundered the tahsil and police station. With this exception, owing to the system introduced of governing through the landholders, the district remained quiet, and (with the exception of the three parganahs of Noh-Jhil, Kosi, and part of Sahár) the revenue was paid till Mr. Thornhill's return. The villages in the two latter parganahs, lying along the Dehli road, were particularly turbulent, and kept the communications so closed that the tahsildár of Kosi could only communicate with Muttra through men disguised as *fakirs*.

On the 5th October Mr. Thornhill returned to Sa'dabad, caught Deokaran and hanged him, but was, however, almost immediately ordered back to Agra by the Chief Commissioner. On the 1st November he again returned to Muttra with Colonel Cotton's column, which proceeded along the Dehli road to Kosi, punishing the insurgent villages as it went. The column then marched back to Agra, leaving Mr. Thornhill at Muttra.

The restoration of British authority was now assured, and nothing further worthy of notice occurred.

Return of Mr. Thornhill
on 5th October, 1857.

GAZETTEER OF THE NORTH-WESTERN PROVINCES.

MUTTRA DISTRICT.

PART IV.

CONTENTS.

	<i>Page.</i>		<i>Page.</i>
Akos	171	Mahában town	200
Ating	172	Majhol	201
Arua	173	Mánikpur	ib.
Aurangabad	ib.	Mát tahsil and parganah	202
Bájana	ib.	Mát town	205
Baldeo or Baladeva	174	Mirhávali	206
Barahna	ib.	Muttra tahsil and parganah	ib.
Barauth	175	Muttra city	209
Barsána	ib.	Nandgaon	2 8
Bathan	177	Nangama	219
Beri	178	Ningáon	ib.
Bisáwar	ib.	Noh-Jhil	ib.
Brindában	ib.	Ol	220
Chamuhá	183	Pacháwar	ib.
Chhāta tahsil and parganah	ib.	Paigāon	ib.
Chhāti town	186	Pánigāon	ib.
Farah	187	Parkham	ib.
Giroi	188	Phálen	221
Gobardhan	ib.	Phandar	ib.
Gokul	189	Rádhákund	ib.
Hathána	190	Rál	222
Jait	ib.	Rasálpur	ib.
Jalesar-road railway station	ib.	Ráya	223
Járau	ib.	Sa'dabad tahsil and parganah	ib.
Jáwara	ib.	Sa'dabad town	226
Jhandáwari	191	Sahár	227
Kámar	ib.	Sahpau	ib.
Kanjauli	ib.	Sehi	228
Karáhri	ib.	Sháhpur	ib.
Bhaira	192	Shergarh	229
Koel tahsil and parganah	ib.	Sonai	230
Koel town	195	Sonkh	ib.
Kursanda	197	Surir	231
Maehera	ib.	Taroli	ib.
Mahában tahsil and parganah	ib.	Werni	ib.

Akos.—Agricultural village in the south of tahsil Mahában; is situated on the left bank of the Jumna, south-east of the district and tahsil capitals, 17 miles from the former and 12 from the latter. Latitude $27^{\circ}-17'-35''$; longitude $77^{\circ}-54'-31''$. Population (1881) 2,861 (1,186 females). It has a weekly market on Mondays. There is a hill here known as Bhím Tilá.

Aríng.—Agricultural town in the centre of tahsíl Muttra; distant 12 miles west from Muttra, on the metalled road from Muttra to Dig. Population (1881) 3,579 (1,629 females), mainly Gaurua Thákurs, Játs, and Brahmaus. The Agra canal passes close to the town, and is bridged at the point where it crosses the main road. The name is popularly derived from Aringsaur, a demon slain by Krishna. Other suggestions are that it is from the root *ar*, to hesitate, because the tax which Krishna imposed was here reluctantly paid; or that *arang* is a local name for a márt, which from its favourable situation on the high road between two large towns, Aríng has always been. Mr. Growse, however, derives it from Arishta-grama, arishta being the original Sanskrit form of *rítha*, the Híndi name of the soap-berry tree (*Sapindus detergens*). The avenue of trees extending from Muttra through Aríng to Gobardhan was mainly planted by Seth Sukhánand. Aríng is generally accounted one of the 24 *upabans*; it has a sacred pond, called Kilol Kund, and three small temples dedicated respectively to Baladeva, Bihárijí, and Pipalesvar Mahádeva. There is also a mud fort built last century by Phundá Rám, one of the Bhartpur Játs. The village contains a first-class police-station, an imperial post-office, and a school of the tahsíl class (which is liberally supported by Lála Rám Bakhsh). A weekly market is held on Sundays. The Great Trigonometrical Survey station of Aríng lies to the north of the village in latitude $27^{\circ}-29'-6.02''$; longitude $77^{\circ}-34'-10.91''$, at an elevation of 670.5 feet above the level of the sea. The upper markstone of the survey is on the vaulted roof of the old fort above-mentioned, and is about 57 feet above the level of the surrounding country.

Aríng was for many years the head of a parganah called by the same name; but in 1868 the offices were all transferred to the capital of the district, and the two parganahs of Muttra and Aríng amalgamated. Till 1818 the village was a *jágír* of á Káshmirí *pandit*, by name Bába Bisrá Náth, but was resumed on his death in that year. The original zamíndárs were Gaurua Thákurs, but in 1852 their estate was transferred by auction sale to Seth Gobind Dás, who bestowed it in free gift upon Swámi Rangáchárya, his spiritual preceptor (*guru*). In October, 1804, the Marhatta army under Holkar was defeated at this place by Lord Lake. In the Mutiny, Rám Bakhsh, the principal resident in the town, being hereditary *putwári* and also agent for the Seth, was conspicuous for his loyalty, and received from the Government a grant of Rs. 1,000 and one-fourth the revenue of Kotra, a village in the same tahsíl on the Bhartpur border. Munshi Bhajan Lál, tahsildár at the time, also received a grant of Rs. 1,200, and smaller donations were conferred upon several other inhabitants of the town, chiefly Brahmaus.

Arua.—Agricultural village in the south of tahsil Mát; distant 12 miles north-east from Muttra, and 4 miles south-east from Mát. Latitude $27^{\circ}37'6''$; longitude $77^{\circ}48'41''$. Population (1881) 2,663 (1,248 females). It has two indigo factories. The market days are Monday and Friday. On the village border is the lake of Mán Sarovar. In the Mutiny Udha, one of the zamíndárs, was put to death by the zamíndárs of the next village, Jáwara; whereupon his friends at Arua and Ayra-Khera assembled a large force for an attack upon Jáwara, and in the engagement many lives were lost on both sides. For this and other acts of depredation Arua was fined Rs. 10,000.

Aurangabad.—Agricultural village in the east of tahsil Muttra; distant two miles south from Muttra, on the metalled road to Agra; is situated not far from the right bank of the Jumna. Latitude $27^{\circ}26'30''$; longitude $77^{\circ}44'50''$. Population (1881) 2,219 (1,102 females), chiefly Baniás, Brahmans, and Játs. A reach of sandy and broken ground extends from the town to the Jumna, where a bridge of boats affords means of communication with Gokul and Mahában on the opposite bank. On the bank of the river is an extensive garden, and beside the high road are the ruins of a handsome red sandstone mosque built in the time of Aurangzeb. The village has a police outpost and a *halkabandi* school. For the accommodation of the latter, Mr. Growse had a handsome and substantial building erected, with pillars and tracery of carved stone, which now forms the most conspicuous ornament of the place. Aurangabad is the chief place in the district for the manufacture of wicker chairs and couches. There is a weekly market on Fridays, chiefly for the sale of thread and cotton. Aurangzeb, from whom the place derives its name, made a grant of it to one Bhím Bhoj, a Tomar Thákur, with whose descendants it continued for many years. The present proprietors are Brahmans and Baniás. Till 1861 it was held rent-free by a *fakír*, commonly called Bottle Sháh from his drinking propensities, a grantee of Daulat Ráo Sindhia. The place is frequently, but incorrectly, called Naurangabád, and it also has the subsidiary name of Mohanpur, from one Mohan Lál, a Sanád, a man of some importance, who came from Mát and settled here last century.

Bājana.—Agricultural town in the north of tahsil Mát; is situated north of the district and tahsil capitals, 34 miles from the former and 22 miles from the latter. Latitude $27^{\circ}53'47''$; longitude $77^{\circ}43'6''$. Population (1881) 4,427 (2,072 females), consisting mainly of Játs, Brahmans, Baniás, and Khatíks. There is no made road by which the place can be approached. A weekly market is held on Saturdays, and a large cattle-market on Thursdays. There is a police outpost and a *sarái*. Since 1856 it has been a stud depôt for

Government stallions. Once a year the young stock is inspected by the officers of the Stud Department on the spot; and the colts as well as the brood mares are also sent for inspection to Aligarh once during the hot weather. The zamíndárs have always been Játs, and many years ago the three brothers then in possession of the estate divided the land into three portions, called after their names Sultán patti, Dilu patti, and Siu patti. These are now to all intents and purposes distinct villages,—each with several subordinate hamlets, but with the old bázár for a common centre. In the Mutiny some of the zamíndárs took part in the assault on Noh Jhíl and in consequence forfeited their estates; one of them, Khubá, died in jail before his trial took place.

Baldeo (or Baladeva).—*Chaukidári* town in the west of tahsíl Mahában; distant 10 miles south-east from Muttra, and five miles east-south-east from Mahában, on the metalled road from Mahában to Sa'dabad. Latitude $27^{\circ}-24'-25''$; longitude $77^{\circ}-51'-55''$. Population (1881) 2,835 (1,254 females). It derives all its celebrity from a temple founded some two or three centuries ago. This building, though large and richly endowed, is neither handsome nor well kept. It includes within its precincts several cloistered quadrangles where accommodation is provided for pilgrims and the resident priests. In one of these courts is shown the small vaulted chamber, said to have been the original shrine, before the present more pretentious edifice was erected by a Dehli Seth named Syám Dás some time last century. Outside the temple is a brick tank about 80 yards square, called variously Kshír-Ságar (the sea of milk), or Kshír-Kund, or Balbhadra-Kund. It is in rather a dilapidated condition, and the surface of the water is always covered with a repulsive thick green scum, which, however, does not deter the pilgrims either from bathing in it or drinking of it. In this tank, it is said, was accidentally discovered the image of Baladeva, now recognized as the local divinity. The place was previously called Rira. The original zamíndárs were Játs, but their estate has passed by sale to the temple priests, who also enjoy an endowment of four other villages rent-free, a grant from Sindhia. Baldeo has an imperial post-office and a first-class police-station.

The watch and ward of the town is provided for by taxation under Act XX. of 1856. During 1881-82 the house-tax thereby imposed, together with a balance of Rs. 76-6-3 from the preceding year, gave a total income of Rs. 1,038-6-3. The expenditure, which was chiefly on police (Rs. 638-2-0), public works (Rs. 21-7-2), and conservancy (Rs. 180), amounted to Rs. 941-15-6. The returns showed 988 houses, of which 348 were assessed with the tax: the incidence being Rs. 2-12-2 per house assessed, and Re. 0-4-7 per head of population.

Barahna.—Station on the Muttra and Hāthras Light Railway; situated in tahsíl Mahában, north-east of the capitals of the district and tahsíl, 12 miles

from the former and the same distance from the latter. Latitude $27^{\circ}34'14''$; longitude $77^{\circ}52'36''$. Population (1881) 499 (227 females).

Barauth.—Agricultural village in tahsil Mát; is situated north of the district and tahsil capitals, 28 miles from the former and 16 miles from the latter. Latitude $27^{\circ}51'8''$; longitude $77^{\circ}44'28''$. Population (1881) 2,230 (1,031 females). A weekly market is held on Thursdays.

Barsána.—Small town in the west of tahsil Chhátá; distant 31 miles north-west from Muttra, and 10 miles south-west from Chhátá. Latitude $27^{\circ}38'59.7''$; longitude $77^{\circ}24'54''$. Population (1881) 2,773 (1,324 females). It has a third-class police-station and a district post-office. The following description of the town has been taken almost *verbatim* from Mr. Growse's *Mathura*:—

Barsána, according to modern Hindu belief, the home of Krishna's favourite mistress Rádha, is a town which enjoyed a brief period of great prosperity about the middle of the last century. It is built at the foot and on the slope of a hill originally dedicated to the god Bráhma, which rises abruptly from the plain near the Bhartpur border of the Chhátá tahsil to a height of some 200 feet at its extreme point, and runs in a south-east direction for about a quarter of a mile. The hill is still to a limited extent known as *Bráhma ká Pahár* (Bráhma's hill); and hence it may be inferred with certainty that Barsána is a corruption of the Sanskrit compound *Bráhma sánu*, which bears, the same meaning. The four prominent peaks of the hill are regarded as emblematic of the four-faced divinity, and are crowned with different buildings; the first with the group of temples dedicated to Láriji, the other three with buildings known as the Mán Mandir, the Dán-garh and the Mor-kutti. A second hill of less extent and elevation completes the amphitheatre in which the town is set, and the space between the two ranges gradually contracts to a narrow path, which barely allows a single traveller on foot to pass between the sloping rocks on either side. This pass is famous as the Sánkari Khor, literally the narrow opening, and is the scene of a fair in the month of *Bhádón* (August-September), often attended by as many as 100,000 people. The crowds divide according to their sex and cluster about the rocks round two little shrines erected on either side of the ravine for the temporary reception of figures of Rádha and Krishna, and indulge to their heart's content in all the licentious banter appropriate to the occasion. At the other mouth of the pass is a deep dell between the two high peaks of the Mán Mandir and the Mor-Kutti; with a masonry tank in the centre of a dense thicket called the Gahwar-ban; and the principal feature in the diversions of the day is the throwing of sweetmeats by the better class of visitors, seated on the terraces of the "Peacock Pavilion" above, among the multitudes that throng the margin of the tank some 150 feet below.

The summit of Bráhma's hill is crowned by a series of temples in honour of Láriji, a local title of Rádha, meaning the beloved. These were all erected at intervals within the last 200 years, and now form a connected mass of building with a lofty wall enclosing the court in which they stand. Each of the successive shrines was on a somewhat grander scale than its predecessor, and was for a time honoured with the presence of the divinity, but even the last and largest is an edifice of no special pretension; though seated as it is on the very brow of the rock and seen in conjunction with the earlier buildings, it forms an imposing feature in the landscape to the spectator from the plain below. A long flight of stone steps, broken about half way by

were met at Nodal in Gurgāon by Najaf Khān hastening up from Agra. Dislodged from their position, they fell back upon Kotban and Kosi, which they occupied for nearly a fortnight, and then finally withdrew towards Dig, but at Barsāna were overtaken by the wazīr and a pitched battle ensued. The Jāt infantry, 5,000 strong, were commanded by Sumru, who had first taken service under Sūraj Mal, and was still with his son, Naval Sinh, the then rāja of Bharatpur. The ranks of the Imperialists were broken by his gallant attack, and the Jāts, feeling assured of victory, were following in reckless disorder, when the enemy, rallying from their sudden panic, turned upon their pursuers, who were too scattered to offer any solid resistance, and totally routed them. They contrived, however, to effect a retreat to Dig, while the town of Barsāna was given over to plunder, and the stately mansions so recently erected there were reduced to their present state of ruin in the search for hidden treasure. Naval Sinh died some 20 days after the battle, but whether in consequence of wounds there received is not certainly known. He was succeeded by his brother Ranjit Sinh, who found his dominions reduced to the fort of Bharatpur with an income of nine lakhs from the adjacent territory. Barsāna never recovered from this blow, and in 1812 sustained a further misfortune when the Gauria Thākurs, its zamindārs, being in circumstances of difficulty, and probably distrustful of the stability of British rule then only recently established, were mad enough to transfer their whole estate to the Lāla Bābu for the paltry sum of Rs. 602 and the condition of holding their land on rather more favourable terms than other tenants. The village now yields Government an annual rental of Rs. 3,109, and the absentee landlord at least as much, while it receives from him nothing in return.

Bathan.—Agricultural village in tahsil Kosi, distant 30 miles north-west from Muttra, and 3 miles south-west from Kosi. Latitude $27^{\circ}-46'-40''$; longitude $77^{\circ}-26'-2''$. Population (1881) 2,397 (1,097 females), consisting almost entirely of Jāts and Rājputs. According to popular belief, the name of the village is derived from the circumstance that Balarāma here sat down (*baithen*) to wait for his brother Krishna; but the word probably is really descriptive simply of the natural features of the spot, *ba'han* being still employed in some parts of India to denote a pasture-ground for cattle. On the outskirts of the village is a large tank with a stone *ghāt* built by Rūp Rām, Katūra, of Barsāna, called Balbhadra-Kund; and at a distance of two miles, the sacred wood of Kokila-ban, a very picturesque spot, where an annual fair is held in Bhādon (August-September), attended by some 10,000 people. In its centre is a temple with a large and well-kept garden and various buildings for the accommodation of pilgrims and spectators, all on the margin of a fine sheet of water bordered by some magnificent trees and connected with a masonry tank of very eccentric configuration, also the work of Rūp Rām. During the fair a sham fight takes place between the women of Bathan, who are armed with clubs (*lāthls*), and the men from the adjoining village of Jav, who defend themselves with bundles of *jhan* (tamarisk) twigs. At Little Bathan a curious ridge of rock, called Charan Pahār, crops up above the ground, the stone beds precisely of the same character as at Barsāna and Naudgāon. It is of 1877

vators and road labourers, 88; sweepers and scavengers, 216; earthenware manufacturers, 95; water carriers, 73; gold and silver smiths, 66; (XXXIV) general labourers, 604; persons in (undefined) service (*naukari*), 673; (XXXV) beggars, 1,049.

The following list of *muhallas*, or quarters, of the town of Brindában is given in Mr. Growse's *Mathura* :—

Quarters.

1. Gyán Gudari.	22. Sewá Kunj.	41. Manipara.
2. Gopesvar Mahádeva.	23. Kunj Gali.	42. Gautampura.
3. Hansibat.	24. Byás-ká-Gherá.	43. Ath Khamba.
4. Gopináth Bāgh.	25. Singárbat.	44. Gobind Bāgh.
5. Bázár Gopináth.	26. Ras Maudal.	45. Loi Bázár (the blanket market).
6. Brahmkund.	27. Kishorpura.	46. Retiya Bázár.
7. Rádhá Nivás.	28. Dhobiwári Gali.	47. Bankhandi Mahadeva.
8. Kesi Ghát.	29. Rangi Lal'ki Gali.	48. Chhipi-ki-Gali
9. Rádhá Raman.	30. Sukhan Mátá Gali (i.e., street of dried-up small-pox).	49. Ráewári Gali (occupied by Bháts, or bards, who are always distinguished by the title Ráe).
10. Nidhban.	31. Purána Shahr (i.e., old town).	50. Bundela-ka-Bāgh (Bundela is the god propitiated in time of cholera).
11. Patharpura.	32. Láriawára Gali.	51. Mathurá Darwaza.
12. Nagar Gopináth.	33. Gabdua-ki-Gali.	52. Ghera Sawai Jai Sinh.
13. Gherá Gopináth.	34. Gobardhan Darwaza.	53. Dhir Samir.
14. Nagar Gopál.	35. Ahirpára.	54. Mauni Das ki Tatti.
15. Chir Ghát.	36. Dusanit (the name, it is said, of a sub-division of the Sanádh tribe).	55. Gahvarban.
16. Mandi Darwaza.	37. Muhalla Barwára (from the number of bar trees).	56. Gobindkund.
17. Gherá Gobind Jí.	38. Ghera Madan Mohan.	57. Rádhá Bāgh.
18. Nagar Gobind Jí.	39. Bihari-pura.	
19. Gali Taksár.	40. Purohitwára.	
20. Kám Jí Dwára.		
21. Bázár Kanthiwára (i.e., sellers of rosaries and necklaces).		

A large proportion of these names refer to legendary incidents; the others explain themselves. The Gyán Gudari is a large open market-place, where nothing is sold, but where the pilgrims delight to congregate and roll about in the dust, which they consider sacred. *Gyán* is simply an honorific epithet to denote the holiness of the spot, and *gudari* means a market.

Brindában, as the spot where Krishna passed much of his youth, is, as might be expected, essentially a town of temples and *gháts*. There are computed to be within its limits as

Temples.

many as 1,000 temples, though this number includes of course many which, strictly speaking, are only private chapels. The peacocks and monkeys, with which the neighbourhood abounds, enjoy special endowments bequeathed them by the ríjas of Kota and Bhartpur. The town is maintained entirely by its temples and its religious reputation. All through the year its *dharmasáls*, or rest-houses, are crowded with pilgrims, the greater part of them from Lower Bengal, who have come thus far from their homes with no other object than that of dying on holy ground. The four oldest temples at Brindában are those of Gobind Deva, Gopi Náth, Jugal Kishor, and Madan Mohan. They were built under Akbar's protection, and a description of them has been given in Part III [p. 93]. The reader will also find there a description of the temple

of Rádha Ballabh ascribed to the year 1628 A.D. There are other ancient temples in Brindában, but they are small and possess no architectural merit. Since 1803, however, some magnificent temples have been raised, and a few that demand special notice are described in the following paragraphs.

The earliest is the temple of Krishn Chandrama, built at a cost of 25 lákhs by the wealthy Bengali, Krishn Chandra Sinh, better known as the Lála Bábu. It was completed in 1810. It stands in a large courtyard laid out as a garden, and is of quadrangular form, about 160 feet in length, with two towers of white stone.

By far the largest of all the modern temples is that founded by Seths Gobind Dás and Rádha Krishna, brothers of Lakhmi Chand. It is dedicated to Rangji, a title of Vishnu in Southern India (Dikhin), and is built in the Madras style on a plan supplied by the Seth's spiritual guide (*guru*), the great Sanskrit scholar, Swámi Rangá-chárijya, a native of that part of India, who died in 1874. The works were commenced in 1845, and completed in 1861 at a cost of 45 lákhs of rupees. The outer wall measures 773 feet by 440, and encloses a garden and fine tank in addition to the actual temple court. This latter has lofty gate towers (*gopura*), covered with a profusion of coarse sculpture executed in plaster; and in front of the god is erected a pillar of copper gilt 60 feet in height and sunk some 24 feet below the surface of the ground. This alone cost Rs. 10,000. The principal or western entrance of the outer court is surmounted by a pavilion 93 feet high. This is constructed in the Muttra style after the design of a native artist, and in the elegance of its outlines presents a striking contrast to the heavy and misshapen masses of the Madras Gopura which rises immediately in front of it. An annual festival called the *Brahmotsav* is held in the month of Chait (March-April) and lasts for 10 days. At its close the god is placed on an enormous *rath*, or Jagannáth car, and dragged a distance of 600 yards to a garden where there is a handsome pavilion for its reception. The procession is accompanied by a detachment of the Bhartpur troops with their military band, and by a long train of gaily caparisoned horses, camels, and elephants: and at night there is a grand display of fireworks. The ordinary expenditure on one of these celebrations is Rs. 20,000. Every day throughout the year, 500 of the Srivaishnava sect are fed at the temple, and there is a bucket (*dol*) of flour every morning up till 10 o'clock for every one of any class who chooses to apply for it. The annual cost of the establishment amounts to Rs. 57,000.

If the effect of the Seth's lavish endowment is impaired by the ill-judged adoption of a foreign style of architecture, still more is this error apparent in the temple of Rádha Raman lately completed. The founder is Sháh-Kundan Lál of Lucknow, who built it on a type suggested by the modern secular edifices of that city. The principal entrance is in a grandiose way rather effective; and the temple itself is constructed of the most costly materials, and fronted with an elegant colonnade of spiral marble pillars, each shaft being all of one piece. The mechanical execution is also good, but the effect is spoiled by the execrable taste of the design. The façade, with its uncouth pediment flanked by sprawling monsters, and its row of life size female figures in meretricious but at the same time most ungraceful attitudes, is a severe though unintentional satire on the licentious form of worship to which it is consecrated. Ten lákhs of rupees are said to have been wasted on its construction.

In striking contrast to this tasteless edifice is the temple of Rádha Indra Kishor, built by Ráni Indra Jit Kunwar, widow of Het Rám, Bráhmaṇ, zamindár of Tikari by Gaya. The temple was six years in building. It is a square

Temple of Rádha Indra Kishor.

extensive importation into Brindában of *lei*, or flannel, from Márwár, and more particularly from Bikanír. It is an article much affected by natives for winter clothing, and is ordinarily preferred to *pashmina* as cheaper and more durable. Much of that brought to Brindában is old and worn; but the tailors of the place, who are chiefly of the *Baniá* or *Bairági* class, repair it so skilfully that after it has been washed it is impossible to distinguish it from new material.

The chief imports into the municipality according to the official statement, with the quantity or value imported in 1881-82, were as follows:—grain (1,39,838 maunds); rice (14,335 maunds); refined sugar (6,512 maunds); unrefined sugar (7,673 maunds); fresh fruits (Rs. 20,369); dry fruits (Rs. 2,520); *ghí* (5,455 maunds); edible roots (Rs. 6,182); *pán* (Rs. 2,812); other articles of food (2,574 maunds); straw and grass (Rs. 2,475); animals for slaughter (1,588 head); oil and oilseeds (8,246 maunds); coal (528 maunds); fuel (Rs. 18,575); building materials (Rs. 39,002); drugs and spices (Rs. 21,563); tobacco (1,531 maunds); European and native cloth (Rs. 2,25,416); and metals (Rs. 38,861).

The municipal committee of Brindában consists of twelve members, of whom at present four sit by virtue of their office, and the remainder by election. The income of the municipality is derived chiefly from an octroi tax, falling in 1881-82 at the rate of Re. 0-13-6½ on net receipts per head of population. The total income in 1881-82 was Rs. 20,932 (including a balance of Rs. 83 from the previous year). The total expenditure in the same year was Rs. 20,715; the chief items of which were collection (Rs. 2,788), original works (Rs. 2,180), repairs and maintenance of roads (Rs. 4,242), police (Rs. 4,477), lighting (Rs. 1,250), and charitable grants (Rs. 1,478).

Though Brindában is mentioned in all the *Puránas* as one of the chief *tirthas*, or places of pilgrimage, of Braj, it is probable that for many centuries it was merely a wild, uninhabited jungle, a description still applicable to *Bhándturban* on the opposite side of the river, a spot of equal celebrity in Sanskrit literature. Till the reign of Akbar the only temple it could boast was a small shrine dedicated to Brindá Devi; but in the latter half of the sixteenth century several holy men from different parts of India, of whom the two most famous were named *Rupa* and *Sandána* from Gaur in Bengal, made it their abode, and by their rigid asceticism acquired a great reputation both for themselves and the locality. It is said that even the Emperor Akbar about the year 1570 A. D. paid them a visit, attended by

some of the chief Hindu princes, and was so impressed by the marvels they showed him that he cordially supported the proposals there and then made for the establishment of a series of temples more worthy of the local divinity. From this incident dates the foundation of Brindāban as a town.

Chaumuhā.—Agricultural village in the south of tahsíl Chhāta; distant 12 miles north-west from Muttra, and 8 miles south-east from Chhāta, on the metalled road from Muttra to Dehli. Latitude $27^{\circ}-37'-20''$; longitude $27^{\circ}-37'-25''$. Population (1881) 2,275 (1,025 females), chiefly Gaurua Thákurs. It has a temple of Bihári Ji, and two ponds known as Bihári-Kund and Chandokhar. There are also the remains of a large masonry *sarāi* said to have been constructed by Nawáb Asaf Khán, who is described as manager (*kámdár*) of the Emperor Sher Sháh. When Sindhia was the ruling power, he bestowed the village for educational purposes on the celebrated *pandit* Gangádhār, whose heirs still enjoy one-fourth of the annual revenue, the remainder being the main endowment of the Agra College. In all the old topographies, the *sarāi* is described as situated at Akbarpur. This is still the name of the adjoining village, which must at one time have been of much wider extent, for the name Chaumuhā is quite modern and derived from the discovery in a field of an ancient sculpture supposed to represent the four-faced (*chaumuhā*) god Bráhma. It is in reality the pedestal of a Jaini statue or column. A weekly market is held in the village on Tuesdays.

Chhāta.—A western tahsíl of the district, conterminous with the pargannah of the same name; is bounded on the north by tahsíl Boundaries, area, &c. Kosi and the Jumna; on the east by the Jumna; on the south by tahsíl Muttra; and on the west by the State of Bhartpur. The Jumna forms the boundary between this tahsíl and the Mát tahsíl. The total area in 1881-82 was 251·5 square miles, of which 187·1 were cultivated, 48·9 cultivable, and 15·5 barren; and the area paying Government revenue or quit-rent was 217·7 square miles (159·3 cultivated, 44·1 cultivable, 14·3 barren). The amount of payment to Government, whether land-revenue or quit-rent (including, where such exists, water-advantage, but not water-rates), was Rs. 2,02,628; or, with local rates and cesses, Rs. 2,30,552. The amount of rent, including local cesses, paid by cultivators was Rs. 3,68,560.

According to the census of 1881, the tahsíl contained 106 inhabited vil-
 Population. lages: of which 17 had less than 200 inhabitants; 38 between 200 and 500; 27 between 500 and 1,000; 15 between 1,000 and 2,000; 6 between 2,000 and 3,000; and 2 between 3,000 and 5,000. The only town containing more than 5,000 inhabitants was Chhāta

(6,014). The total population was 84,598 (39,613 females), given a density of 330 to the square mile. Classified according to religion, there were 76,987 Hindus (36,031 females); 7,605 Musalmáns (3,581 females); and 6 Jains (1 female).

The tahsíl is rectangular in shape ; its breadth from east to west averages 23 miles, whilst its average length from north to south is only 11 miles. The Agra canal passes through it from north to south, entering it at Bhadáwal, skirting Sabár, and leaving it near Bharna Khurd ; it divides it into two unequal portions, of which the eastern is more than double the size of the western. Although situated between the Bhartpur hills on the extreme west and the range of sand and ravines that slope towards the valley of the Jumna on the east, the surface of the tahsíl is exceptionally level and uniform. There is not a single river or stream to break the surface of the country, and after the rains no body of water larger than a pool is to be met with. The shallow depressions locally known as *duhar* are drained off or dry up in time for *rabi* cultivation. The only one marked line of drainage is that which, entering the tahsíl in the extreme north-west corner, passes through the opening between the Barsána and Nandgáon hills, and turning to the south, leaves it at the village of Hathiya. This depression is, at long and uncertain intervals, liable to floods, the deposits of which greatly fertilize the soil. Parallel to this drainage line, at a distance of three miles to the east of it, runs a narrow belt of sand that rises slightly above the level of the country. From this belt to the Jumna system of sandhills, the only marked line of light soil that breaks the dead level of the country is that running along the Dehli road. As the Jumna is approached, the soil becomes considerably lighter, until it consists of almost pure sand, which borders the valley of that river. The Jumna ravines in this tahsíl are not such an important physical feature as in the tahsíls further south. The general soil of the tahsíl is a light but strong loam, which contains a sufficient admixture of sand to render it friable and easily worked, whilst there is enough clay in its composition to give it body ; it varies, however, within narrow limits. The only parts of the tahsíl that do not come within this general description of the soil are the sand ranges above described and a few isolated patches. The Jumna *khádar*, except in the bend of the river in the north-east and in the south-east from Basai Buzurg to the Muttra border, is nowhere extensive. The soil of the *khádar* is purely alluvial, and is of the same general character as the Jumna *khádar* elsewhere, varying from pure white sand to a rich and firm dark loam that retains, as a rule, sufficient moisture to render

irrigation unnecessary. Up to a very recent period almost the whole extent of country was pasture and woodland, and at the present day many of the villages are environed by broad belts of trees, variously designated as *ghaná*, *jhari*, *rakhya*, *ban*, or *khandi*. When the last term is used, the name of the most prevalent kind of tree is always prefixed, as for instance *kadamb-khandi*.

Irrigation from *jhills* is unknown; as the shallow pools of the tahsil dry up too quickly to be of any use. The villagers have religious scruples about using tank water for their fields, and it is nearly always reserved for cattle. Streams are unknown, and the Jumna flows in too deep a bed to permit of its water being utilized, except in some of the *khádar* lands. The only sources of irrigation are wells and the canal. The depth of water varies considerably: in the central tableland, which forms the bulk of the parganah, it ranges from 40 to 60 feet; along the hills on the west, from 25 to 40 feet; while in the uplands along the Jumna, from Pírpur to Basai Khurd, it is not much more than 20 feet from the surface. In the whole of the eastern portion of the tahsil, within seven miles from the Jumna, the well water is for the most part sweet; but over the rest of the tahsil, except in a few villages under the Bhartpur hills, and in the sand ranges already described, the water is brackish.

More than half the whole area is occupied by *júdr* and cotton, and nearly two-thirds of the whole is sown with *khartí* crops, while gram and *bejhar* form more than three-fourths of the *rabi* cultivation. These crops are chiefly sown because they exact but little trouble or skill in their cultivation. The area covered with *bañra* is comparatively small, although it is nearly double that under wheat. This crop is grown largely under the hills and among the ravines, and but little elsewhere. The more valuable crops, such as sugarcane, tobacco, indigo, and vegetables, are but little cultivated. Of the area under wheat, nearly a third is grown in the *khádar* land, where irrigation is not required. Cotton, in fact, is the only valuable crop that is extensively grown.

The total area paying revenue owned by proprietors was, at the recent settlement, 139,356 acres, and the total revenue-free area was 21,638 acres. Of the former, 40,503 acres were held by Thákurs, 26,997 by Brahmans, 15,663 by Káyaths, 14,350 by Játs, 12,215 by Dhúsars, 11,863 by Gújars, 8,192 by Muhammadans, 3,906 by Baniás, 327 by Ahírs, and 1,262 by other castes, while 4,078 were dedicated to temples. A large proportion of the land is owned by the original communities holding their properties under the *bhaiyáchára* tenure. The two largest estates acquired during the present century by purchase are enjoyed by

by non-residents, *viz.*, the heirs of the Lāla Bábu, who are natives of Calcutta, and the Rāni Sāhib Kunwar, the widow of Rāja Gobind Sinh, who took his title from the town of Hāthras, the old seat of the family. The rāni died in 1883; the young rāja lives at Brindāban. Of resident landlords the three largest all belong to the Dhūsar caste; their names are as follows:—(1) Kanhaiya Lāl, Sukhbāsi Lāl, Bhujan Lāl, and Bibāri Lāl, sons of Rām Bakhsh of Sahār, where they have property, as also at Bharauli and three other villages; (2) Munshi Nathu Lāl, who for a time was in Government service as a tahsildār, with his son Sardār Sinh, also of Sahār; (3) Lāla Badri Prasād, head of a firm which has branch houses at Cawnpore, Agra, Amritsar, and other places.

Of the total cultivated area, 46,096 acres were, at the recent settlement, cultivated by proprietors as *sir*, 289 by ex-proprietary tenants, 34,845 by tenants with occupancy rights, and 33,783 by tenants-at-will. An unusual feature in this tahsíl was that the average rate of rent paid by occupancy tenants was almost 10 per cent. more than that paid by tenants-at-will.

The history of the constitution of the Chhāta tahsíl has been given in Part I. [p 4]. It comprises the parganahs of Sahār and Shergarh. When received from Sindhia in 1803, Sahār, which then included part of Aríng, was given to the rāja of Bhartpur, and Shergarh, which included part of Kosi, to Balla Bai, revenue-free (*jágir*). On the defeat of Bhartpur in 1805, Sahār was retaken, and by Regulation XII. of 1806 was annexed to the Agra district. It was immediately made over free of revenue charges to Sindhia's wife and daughter, to be finally resumed in 1808, in lieu of a money-payment. At the penultimate settlement the parganahs of Sahār and Shergarh formed the Sahār tahsíl. They were amalgamated into one tahsíl, Chhāta, after the Mutiny. Chhāta consists of 111 villages, of which 14 are revenue-free. The revenue-demand of the first year of the penultimate settlement, known as Mr. Tyler's settlement, was Rs. 1,75,652; and the expiring demand was Rs. 1,77,308. The final assessment of the current settlement was Rs. 2,02,933, or a rise of Rs. 25,625 (14 per cent.) on the old demand. For further details, see Part III., pp. 117-128.

Chhāta.—Head-quarters of tahsíl just described; distant 21 miles north-west from Muttra, on the metalled road from Muttra to Dehli. Latitude 27°-43'-22.62"; longitude 77°-32'-56.69". By the census of 1881 the area was 75 acres, with a total population of 6,014¹ (2,837 females), giving a density

¹ 6,724 in 1872.

of 80 to the acre. The Hindus numbered 4,958 (2,315 females), and Musalmáns 1,056 (522 females). The principal feature of the town is its large fort-like saráí, covering 20 bighas of land, with battlemented walls and bastions and two lofty entrance gateways of decorated stone-work. It is locally said to have been built in the reign of Sher Sháh, but may with greater probability be ascribed to Akbar, in whose time it was, if not begun, at least almost certainly completed. In 1857 it was occupied by the rebel zamíndárs, and one of the towers had to be blown down before an entrance could be effected. At the same time the town was set on fire and partially destroyed, and 22 of the leading men were shot. It was originally intended to confiscate the whole village; but eventually only one and a half times the revenue was taken for one year. The name is locally derived from the *Chhattra-dhárana-líla*, which Krishna is said to have celebrated there; but there is no legend regarding such an event, and in all probability the name refers merely to the stone cenotaphs that surmount the *saráí* gateways, and form prominent objects in the landscape from a very considerable distance. The town has a second-class police-station, an imperial post-office, a tahsílí school, and a camping-ground for troops. A market is held on Fridays.

The watch and ward of the town is provided for by taxation under Act XX. of 1856. During 1881-82 the house-tax thereby imposed, together with a balance of Rs. 121-11-6 from the preceding year, gave a total income of Rs. 1,893-15-6. The expenditure, which was chiefly on police (Rs. 929-12-0), public works (Rs. 520-0-11), and conservancy (Rs. 216), amounted to Rs. 1,788-7-6. The returns showed 1,631 houses, of which 1,092 were assessed with the tax; the incidence being Rs. 1-9-11 per house assessed, and Re. 0-4-9 per head of population.

Farah.—*Chaukídári* town in the south of tahsíl Muttra; is situated not far from the right bank of the Jumna, 12 miles south from Muttra, on the metalled road to Agra. Latitude 27°-19'-13"; longitude 77°-48'-12". Population (1881) 3,642 (1,194 females). It has a first-class police-station, an imperial post-office, and a camping-ground for troops on the Agra road. Markets are held on Mondays and Fridays. The town was founded by Hamída Begam, the mother of Akbar. It was, during the exile of Humáyun, about 1555 A.D., the scene of a battle between Sikandar Sháh, a nephew of Sher Sháh, and Ibráhím Sháh, in which the latter was defeated. Sikandar offered peace upon condition of receiving the government of the Panjáb, but his overtures being rejected, he joined in battle, and by his victory became sovereign of Agra and Dehli, while Ibráhím fled to Sambhal. After the sack of Ol in 1737 A.D., Súraj Mal removed the tahsíl to Farah, since when the town has been of some importance. The parganah of Farah was detached from Agra and added on to the Muttra tahsíl in 1879, to compensate for the removal of Jalesar, which in

1874 had been struck off from Muttra and attached to Agra. Jalesar was finally transferred to Etah in 1879.

The watch and ward of the town of Farah is provided for by taxation under Act XX. of 1856. During 1881-82 the house-tax thereby imposed, together with a balance of Rs. 60-14-7 from the preceding year, gave a total income of Rs. 730-3-1. The expenditure, which was chiefly on police (Rs. 336), public works (Rs. 92-10-6), and conservancy (Rs. 144), amounted to Rs. 681-0-7. The returns showed 792 houses, of which 592 were assessed with the tax; the incidence being Rs. 1-1-2 per house assessed, and Re. 0-3-0 per head of population.

Giroi.—Agricultural village in the south of tahsil Kosi; distant 28 miles north-west from Muttra, and six miles south-west from Kosi. Latitude 27°-44'-32"; longitude 77°-24'-29". Population (1881) 2,010 (1,002 females). It has two temples of Jugal Kishor and Murli Manohar.

Gobardhan.—*Chaukidári* town in the west of tahsil Muttra; distant 16 miles west from the district head-quarters. Latitude 27°-29'-49"; longitude 77°-30'-20". Population (1881) 4,944 (2,357 females). According to the literal meaning of the Sanskrit compound, *Gobardhan* is 'the nurse of cattle.' It is a famous place of Hindu pilgrimage, and occupies a recess in a narrow sandstone hill some four or five miles in length, which, with an average elevation of 100 feet, rises abruptly from the alluvial plain and runs north-east and south-west. This is the hill which Krishna is fabled to have held aloft on the top of his finger for seven days and nights to cover the people of Braj from the storms poured down upon them by Indra when deprived of his wonted sacrifices. In pictorial representations it always appears as an isolated conical peak, which is as unlike the reality as possible. It is ordinarily styled by Hindus the *Giri-Ráj* (royal hill). The town clusters round the margin of a very large irregularly-shaped masonry tank, called the *Mánasi-Ganga*, which, as the name denotes, is supposed to have been called into existence by the operation of the divine will. At one end its boundary is formed by the jutting crags of the sacred rock; on all the other sides the water is approached by long flights of steps. It is said to have been first brought into its present shape by Rájá Mán Sinh of Jaipur in Akbar's reign, but it has since been repaired at great cost by the rajas of Bhartpur. During half the year it is almost dry; but at the annual illumination (*Dip-dan*), which occurs at the festival of the *Diwáli*, a fine broad sheet of water reflects the light of the innumerable lamps ranged tier above tier along the *gháts* and adjacent buildings by the 100,000 pilgrims with whom the town is then crowded. The metalled road from Muttra to Dig passes through Gobardhan. The break in the hill where it enters the town is called *Dan Ghát*, from the tradition that it was there that Krishna stationed himself to intercept the milk-maids (*gopi*) and levy a toll (*dán*) on the milk

they were bringing in. Close to the Mánasi Ganga is the famous temple of Harideva, described in Part III. [*supra* p. 94]. On the opposite side are two stately cenotaphs raised in memory of Randhír Sinh and Baldeva Sinh, ríjas of Bhartpur. Both are of the same design, consisting of a lofty and substantial square masonry terrace with corner kiosks and lateral alcoves, and in the centre the monument itself still further raised on a richly decorated plinth. The town contains a third-class police-station and an imperial post-office.

The watch and ward of the town is provided for by taxation under Act XX. of 1856. During 1881-82 the house-tax thereby imposed, together with a balance of Rs. 306-3-3 from the preceding year, gave a total income of Rs. 2,750-10-0. The expenditure, which was chiefly on police (Rs. 1,451-6-9), public works (Rs. 555-2-5), and conservancy (Rs. 240), amounted to Rs. 2,375-12-0. The returns showed 1,414 houses, of which 1,047 were assessed with the tax; the incidence being Rs. 2-4-3 per house assessed, and Re. 0-7-11 per head of population.

Gokul.—*Chaukidári* town in the west of tahsíl Mahában; stands on the left bank of the Jumna, four miles south-east from Muttra, and one mile north-west from Mahában. Latitude $27^{\circ}-26'-15''$; longitude $77^{\circ}-45'-45''$. Population (1881) 4,012 (1,916 females). Though bearing a name of many legendary associations, it is in reality only the modern water-side suburb of the inland town of Mahában. All the traditional sites of Krishná's adventures, though described in the *Puránas* as being at Gokul, are shown at Mahában, which is in fact the place alluded to whenever Gokul is mentioned in Sanskrit literature. However, in consequence of its retaining the ancient name, the modern suburb is considered much the more sacred place of the two. From the opposite side of the river it has a very picturesque appearance, but a nearer view shows its tortuous streets to be mean, crowded, and insanitary. Strenuous efforts have been made within the last few years to improve its sanitation; but the colony of Vallabháchari Gosáins, who have occupied the town for the last two or three centuries, are obstinately tenacious of their dirty habits. The filthy condition of the place is largely owing to the enormous number of cattle stalled in it every night, which render it in reality what the name denotes, a cow-stall (*gokul*), rather than a human habitation. The temples are very numerous, but they are all mean in appearance and modern in date, and the only noteworthy ornament of the town is a large masonry tank constructed by one Chunni Seth 30 years ago.

The watch and ward of the town is provided for by taxation under Act XX. of 1856. During 1881-82, the house-tax thereby imposed gave a total income of Rs. 1,210. The expenditure, which was chiefly on police (Rs. 867-5-8), public works (Rs. 9-6-0), and conservancy (Rs. 96), amounted to Rs. 1,090-2-2. The returns showed 1,315 houses, of which 630 were assessed with the tax; the incidence being Rs. 1-14-5 per house assessed, and Re. 0-4-6 per head of population.

Hathana.—Agricultural village in the north of tahsíl Kosi; distant 33 miles north-west from Muttra, and 6 miles north from Kosi. Latitude $27^{\circ}52'30''$; longitude $77^{\circ}28'0''$. Population (1881) 2,117 (964 females), chiefly Játs. A temple of some size and very considerable local celebrity, dedicated to Lakshmi Nárayan, stands on the margin of an extensive lake faced on the temple side with masonry *gháts*. This is named Kshír Ságara (milky sea).

Jait.—Agricultural village in the north of parganah and tahsíl Muttra; distant 9 miles north-west from Muttra, on the metalled road to Dehli. Latitude $27^{\circ}34'51''$; longitude $77^{\circ}39'0''$. Population (1881) 1,512 (629 females). It has a third-class police-station and a district post-office. The village was founded by Rája Jasaráj Kachhwáha, from Kota, and transferred by his descendants in 1811 A.D. to the Lála Bábu. Till 1808 it was part of the *jágír* of Baijá Báí, and included in the Sonsa parganah. It was then attached to the Farah, and in 1834 to the Muttra parganah.

Jalesar-road railway station.—See MANIKPUR.

Járan.—Agricultural village in the south of tahsíl Sa'dabad; distant 25 miles south-east from Muttra, and 6 miles south from Sa'dabad. Latitude $27^{\circ}21'15''$; longitude $78^{\circ}6'10''$. Population (1881) 2,123 (942 females).

Jáwara.—Agricultural town in the south of tahsíl Mát; distant 12 miles north-east from Muttra, and 4 miles west from Mát. Latitude $27^{\circ}38'15''$; longitude $77^{\circ}48'25''$. Population (1881) 4,066 (1,875 females). The market days are Monday and Friday. The older name was Jhunagarh. Here is the sacred grove of Chandra-ban named after the *sakhi*, Chandravati, 55 *biḡhas* in extent, with a Bairági's cell under the tutelage of Bál-mukund. Also a mosque (*dargáh*) of Mir Sáhíb Shaikh Saddu, where people assemble every Wednesday and Saturday. The trees in the forest (*ban*) are chiefly *pilu*, *babúl*, and *pasendu*, with a few large and venerable *kadumba*s. The leaves of the latter often grow in the shape of perfect cups, which in the summer attain to a considerable size. This curious formation is said to have originated for Krishna's convenience; who one day in his rambles through the woods found the supply of cups and platters that he had with him inadequate for the requirements of all his companions. Similar leaves are found in the Mánagarhi woodland (*ghaná*); these are of a lighter colour than the ordinary foliage, and are esteemed sufficient curiosities for Hindús to send as presents to their friends at a distance. In the Mutiny there was a pitched battle between the zamíndárs here and those of Pachahra and Ayra-Khera, in which as many as 450 lives are said to have been lost.

Jhandawaj—Agricultural town in tahsíl Muttra; distant 13 miles from Muttra. Latitude $27^{\circ}15'25''$; longitude $77^{\circ}43'50''$. Population (1881) 3,347 (1,564 females).

Kámar.—*Chauktidri* town in the west of tahsíl Kosi; situated to the north-west of the head-quarters of the district and tahsíl, 33 miles from the former, and six miles from the latter. Latitude $27^{\circ}48'50''$; longitude $77^{\circ}23'2''$. Population (1881) 3,771 (1,893 females). Though still a populous Ját town with a considerable trade in cotton, it was a place of much greater wealth and importance during the early part of the last century, when Thákur Badan Sinh, the father of Rájá Súrāj Mal, married a daughter of one of the resident families. A walled garden outside the town contains some monuments of the lady's kinsmen, and in connection with it is a large masonry tank supplied by aqueducts with water from the surrounding *rakhya*. At a little distance is another artificial lake with masonry *gháts* called Durvásá Kund, commenced by the rájá, but left unfinished. In the town are several large brick mansions, now in ruins; one of them having a fine gateway in three stories, which can be seen from a considerable distance. All Játs of the Bahinwár Pál—the class to which the people of Kámar belong—are attendants (*chela*) of the temple of Madan Mohan at Kámar, built by Súrāj Mal. Though the Játs settled here muster so strong in numbers, the proprietors of the land are, and always have been, Bráhmans.

The watch and ward of the town is provided for by taxation under Act XX. of 1856. During 1881-82 the house-tax thereby imposed, together with a balance of Rs. 39-5-3 from the preceding year, gave a total income of Rs. 955-12-5. The expenditure, which was chiefly on police (Rs. 443-2-8), public works (Rs. 169-13-10), and conservancy (Rs. 180), amounted to Rs. 899-6-10. The returns showed 991 houses, of which 730 were assessed with the tax: the incidence being Rs. 1-4-0 per house assessed, and Re. 0-3-10 per head of population.

Kanjauli.—Agricultural village in the south of tahsíl Sa'dabad; distant 22 miles south-east from Muttra, and eight miles south-west from Sa'dabad. Latitude $27^{\circ}19'58''$; longitude $78^{\circ}3'11''$. Population (1881) 2,644 (1,214 females).

Karahri.—Agricultural village in the middle of tahsíl Mát; situated north-east of the district and tahsíl capitals, 20 miles from the former, and eight miles from the latter. Latitude $27^{\circ}43'41''$; longitude $77^{\circ}48'56''$. Population (1881) 2,821 (1,227 females). It has a *sardí*, an indigo factory, two temples, a miscellaneous market on Tuesdays, and another for the sale of cattle on Fridays. A large orchard of mango, *jáman*, *amla*, *labera*, and other trees, belonging to the Thákur zamíndárs, forms one of the pleasantest camping-places in the tahsíl, though, for want of watering, the trees have been greatly thinned.

Khaira.—Agricultural village in tahsíl Chhátá; distant 25 miles north-west from Muttra, and four miles west-south-west from Chhátá. Latitude $27^{\circ}41'56''$; longitude $77^{\circ}28'45''$. Population (1881) 2,629 (1,330 females). It has a weekly market on Saturdays. The Khadira-ban, one of the 12 sacred woods of Braj, from which the local name is derived, lies immediately outside the village, and at the present day contains only *kadamb*, *plú*, and *chhonkar* trees, and not a single specimen of the *khadira*. Adjoining it is a tank with a stone *ghát* called Krishan Kund, the scene of an annual fair, and on its bank a temple of Baladeva, with rather a handsome cenotaph in memory of one Rúp Rám, banker (*bohra*), built by his widow 30 or 40 years ago. A temple with the title of Gopináth is said to have been founded by the famous Todar Mal of Akbar's time. There are three other temples called respectively Madan Mohan, Darsan Bihári, and Mahá Prabhu, and two small lakes bearing the names of Bhawáni and Chiuta-Khori.

Kosi.—North-western tahsíl and parganah of the district; is bounded on the north by Gurgón; on the east by the Jumna, which separates it from tahsíl Mát; on the south by tahsíl Chhátá; and on the west by the State of Bhartpur. The total area in 1881-82 was 153·0 square miles, of which 125·0 were cultivated, 19·8 cultivable, and 8·2 barren; and the area paying Government revenue or quit-rent was 152·9 square miles (124·9 cultivated, 19·8 cultivable, 8·2 barren). The amount of payment to Government, whether land-revenue or quit-rent (including, where such exists, water-advantage, but not water-rates), was Rs. 1,67,207; or, with local rates and cesses, Rs. 1,87,273. The amount of rent, including local cesses, paid by cultivators was Rs. 2,29,370.

According to the census of 1881, the tahsíl contained 55 inhabited villages: of which five had less than 200 inhabitants; 9 between 200 and 500; 19 between 500 and 1,000; 14 between 1,000 and 2,000; 5 between 2,000 and 3,000; and 2 between 3,000 and 5,000. The only town containing more than 5,000 inhabitants was Kosi (11,231). The total population was 65,293 (31,291 females), giving a density of 424 to the square mile. Classified according to religion, there were 56,275 Hindus (26,767 females); 8,093 Musalmáns (4,062 females); 924 Jains (462 females); and one Christian, who was of the male sex.

Kosi is the smallest of the six tahsíls of Muttra. Its shade is rectangular; its breadth from east to west averages 17 miles, whilst its average length from north to south is only nine miles. The Agra canal almost bisects it, crossing the Dehli road about a mile south of the town of Kosi. Besides the Jumna, there are no

Out of a total cultivation of 83,117 acres, 21,471 acres, or 26 per cent., were, at the recent settlement, irrigated. The average depth of water throughout the *bāngar* or upland portion is 35·22 feet. To the south-west, in the villages bordering on the Bhartpur hills, water is closer to the surface, and is sometimes found at 25 or 26 feet; whilst in the upland along the Jumna, it is now and then reached even at 20 feet. Elsewhere the depth of the water seldom exceeds 50 or falls lower than 30 feet. In the sand ranges, as a rule, it is nearer the surface than in the level plains on each side.

The crops most extensively grown are *judr*, gram, and barley. The wheat sold at the Kosi market comes chiefly from across the Jumna. The cultivation in this tahsil is superior to that of Chhāta, but not equal to that of the Doāb parganahs, where high rates and a dense population necessitate hard and sustained labour. As a rule, the soil in Kosi is fairly ploughed and worked, and the crops are not left to take care of themselves after the seed is sown, as often happens in the more backward villages of Chhāta.

The total area paying revenue owned by proprietors was, at the recent settlement, 97,497 acres; the total revenue-free area was only 96 acres. Of the former, 55,451 acres were held by Jāts, 1,938 by Brahmans, 1,030 by Thakurs, 514 by Musalmāns, 243 by Baniās, 5 by Kāyāths, and 407 by other castes. The villages, with only a few exceptions, are all held under the *bhaiyachāra* tenure, divided into infinitesimal shares among village communities; so that, excepting a few shop-keepers and menial servants, almost every resident is to some extent a proprietor. The Government demand is realized through the headmen (*lambardar*), of whom there are generally several in each village. As a natural result of this minute sub-division of estates, there is not a single landed proprietor in the whole tahsil of any social distinction.

As might be expected from what has just been said, the greater portion of the cultivated area, amounting to more than 62 per cent., is held by the proprietors themselves as *śr*. Occupancy tenants are to tenants-at-will in the proportion of two to three. The average cultivation of each proprietor is about eight acres, and of each tenant five acres. The total area cultivated as *śr* was, at the recent settlement, 49,571 acres; while 450 acres were cultivated by ex-proprietary tenants, 11,847 by occupancy tenants, and 19,210 by tenants-at-will.

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During the first three settlements the revenue of the tahsil was collected with ease and punctuality, and no balances were allowed to accrue. The settlement under Regulation VII. of 1882, undertaken by the collector, Mr. Boddam, proved a failure; estates fell into arrears, and a reduction in the demands of five villages had to be made by Government. In 1835-36, a general revision under Regulation IX. of 1833 was conducted by his successor, Mr. Tyler, who found that the villages then were very unevenly assessed. The expiring demand of Mr. Tyler's settlement was Rs. 1,51,181. Had the assessment at the last (current) settlement been made at half the recorded assets, it would have resulted in a revenue demand of nearly Rs. 1,71,000, or an increase of between Rs. 19,000 and Rs. 20,000. But in a tahsil like Kosi, owned almost exclusively by large-*bhaiyachdara* communities, it was, in the opinion of assessing officer, the best policy to make a lenient assessment. The individual revenues accordingly assessed by him on each estate, with reference to its individual capabilities and past history, amounted in all to Rs. 1,67,040, an increase of Rs. 15,859, or 10·5 per cent., on the expiring revenue. For further details, see Part III., pp. 117-128.

Kosi.—Chief town of the tahsil just described; distant 27 miles north-west from Muttra, on the metalled road to Dehli. Latitude $27^{\circ}47'40''$; longitude $77^{\circ}28'45''$. By the census of 1881 the area was 374 acres, with a total population of 11,231¹ (5,529 females); giving a density of 30 to the acre. The Hindus numbered 6,831 (3,253 females); Musalmáns, 3,866 (2,000 females); Jains 533 (276 females); and there was one Christian (who was of the male sex).

The following is a statement of the principal occupations²:—(I) persons employed by Government or municipality, 145; (III) ministers of the Hindu religion, 41; (XI) inn-keepers (*bhaiyara*); 45; (XIII) brokers, 211; (XVII) porters, 175; (XVIII) landholders, 250; landholder's establishment, 146; cultivators and tenants, 332; agricultural labourers, 58; (XIX) cattle dealers, 72; (XXIX) weavers, 75; calico printers and dyers, 80; cloth merchants (*bazár*), 54; shoemakers and sellers, 59; washermen, 41; barbers, 65; (XXX) butchers, 45; corn and flour dealers, 246; confectioners (*halwá*), 51; green-grocers and fruiterers, 56; condiment dealers (*pansari*), 41; (XXXIII) sweepers and scavengers, 247; water carriers, 56; gold and silver smiths, 42; (XXXIV) general labourers, 604; (XXXV) beggars, 175.

The name Kosi may possibly be connected with the sacred grove of *Kotban*, which is close by, but it is popularly believed to be a corruption of *Kusasthali*, another name for Dwáraka. In confirmation of this belief it is pointed out that there are in

¹ 12, 770 in 1872

² Roman numerals indicate the classes in the census returns.

Kosi places named Ratnákar Kund, Mayá Kund, Bisákha Kund, and Gomati Kund, just as there are at Dwáraka.

There is a large stone walled saráí covering $9\frac{1}{2}$ bighas of land, said to have been built by Khwája Itibar Khán, and a masonry tank of the same area and constructed at the same time. This latter unfortunately is always dry except during the rains. Though there are numerous temples and four mosques, they are all modern buildings and of no architectural merit. The cattle market is the largest in the district. Kosi has a first-class police-station, an imperial post-office, a second-class branch dispensary (6,354 patients in 1882), and a tahsili school. There is also a municipal bungalow available as a rest-house.

The place is feverish, and strangers (officials and others compelled to live here) complain much of the climate. Popularly this liability to fever is considered to be a result of the opening of the canal. There is plenty of fresh water, which is generally good, and canal-water is made use of only for cattle and bathing. The streets are fairly well drained, being paved with brick and stone, and having drains on either side. The sweepings of the town are collected in trenches covered with earth and sold to cultivators.

The chief imports into the municipality according to the official statement, with the quantity or value imported in 1881-82, were as follows:—grain (75,763 maunds); refined sugar (4,551 maunds); unrefined sugar (27,078 maunds); *ghí* (1,067 maunds); animals for slaughter (6,051 head); oil and oilseeds (3,932 maunds); fuel (Rs. 2,730); building materials (Rs. 6,253); drugs and spices (Rs. 16,164); tobacco (1,134 maunds); European and native cloth (Rs. 89,718); and metals (Rs. 19,974).

The municipal committee of Kosi consists of twelve members, of whom two sit by virtue of their office, and the remainder by election. The income of the municipality is derived chiefly from an octroi tax falling in 1881-82 at the rate of Re. 0-9-8 $\frac{1}{2}$ on net receipts per head of population. The total income in 1881-82 was Rs. 15,481 (including a balance of Rs. 4,711 from the previous year). The total expenditure in the same year was Rs. 13,581, the chief items of which were collection (Rs. 1,421), original works (Rs. 1,224), repairs and maintenance of roads (Rs. 3,584), and police (Rs. 1,530).

On the 31st of May, 1857, the rebels on their march to Delhi stopped at Kosi, and after burning down the customs bungalow, and pillaging the police-station, plundered the *tahelli* of

the small sum of money, some Rs. 150, which was all that they found there; nearly all the records were saved. The townspeople and most of the adjoining villages remained well affected, and as a reward one year's land revenue was remitted and a grant of Rs. 50 made to each *lambardár*.

Kursanda.—Town in the centre of tahsíl Sa'dabad; distant 20 miles south-east from Muttra, and 3 miles south-west from Sa'dabad; is situated on the Agra and Aligarh road. Latitude $27^{\circ}-23'-45''$; longitude $78^{\circ}-3'-24''$. By the census of 1881 the area was 82 acres, with a total population of 6,018¹ (2,697 females), giving a density of 73 to the acre. The Hindus numbered 5,625 (2,525 females); Musalmáns, 393 (172 females). Kursanda was settled by a Hagá Jat, named Púran Chand, who bestowed part of the land on his family priest (*purohit*), Chandu Pánda. Their descendants are still in possession, except of a part which has been acquired by Athwarayas. There are four small temples. A market is held twice a week, on Sunday and Thursday. In the Mutiny two of the zamíndárs, Zálím and Deo Karan, were hanged for the part they took in looting Sa'dabad.

Maghera.—Agricultural town in the north of tahsíl Muttra; distant 15 miles north-west from the head-quarters of the district. Latitude $27^{\circ}-34'-0''$; longitude $77^{\circ}-37'-52''$. Population (1881) 4,719 (2,207 females). The zamíndárs were formerly Kirárs; they are now Ahivásís.

Mahában.—A tahsíl on the eastern side of the district, conterminous with the parganah of the same name; is bounded on the north by tahsíl Mát; on the east by the Aligarh district and the tahsíl of Sa'dabad; and on the remaining sides by the Jumna, which separates it from Agra on the south and from the Muttra tahsíl on the west. The total area in 1881-82 was 238·8 square miles, of which 194·4 were cultivated, 23·7 cultivable, and 20·7 barren; and the area paying Government revenue or quit-rent was 214·9 square miles (174·8 cultivated, 23·5 cultivable, 16·6 barren). The amount of payment to Government, whether land-revenue or quit-rent (including, where such exists, water-advantage, but not water-rates), was Rs. 3,13,568; or, with local rates and cesses, Rs. 3,54,906. The amount of rent, including local cesses, paid by cultivators was Rs. 5,50,632.

According to the census of 1881, the tahsíl contained 196 inhabited villages: of which 64 had less than 200 inhabitants; 63 between 200 and 500; 39 between 500 and 1,000; 21 between 1,000 and 2,000; 6 between 2,000 and 3,000; and 2 between 3,000 and 5,000. The only town containing more than 5,000 inhabitants was

Mahában (6,182). The total population was 116,829 (52,792 females), giving a density of 489 to the square mile. Classified according to religion, there were 110,029 Hindus (49,605 females); 6,787 Musalmáns (3,180 females); 2 Jains (both females); 10 Christians (5 females); and one other (male).

The tahsíl is of a straggling and irregular shape, narrowing to a point in the extreme north and south. The southern portion

Physical features.

is enclosed in a loop of the Jumna facing Akbar's tomb at Sikandra. Its maximum length from north to south is 32 miles. In the centre it widens out, and reaches its maximum breadth of 14 miles opposite Muttra. The Jumna with its series of sinuous bends is the boundary of the tahsíl for nearly 50 miles. For a distance varying from one to three miles inland from the river, the surface of the ground is broken up either by ravines or heavy sandhills. This belt of sand and ravines is for the greater part uncultivated, but is much used for grazing purposes. Some of the ravines are fairly wooded, and in the sandy tracts coarse thatching-grass (*sarpat*) grows in profusion. To the east, beyond the zone of sand and ravines, the country is level and like the rest of the Doáb. The prevailing soil is *píliya*, or light loam. Isolated tracts of sand occur even in the eastern portion of the tahsíl, but they form a comparatively small area. The *baisuri* weed prevails in the east in the tract of country that extends from Ráya to Bisáwar, and especially in Ayra-Khera, but elsewhere it is not met with in the tahsíl. Owing to the action of the river, the area and conformation of the Jumna valley, as well as the amount of it that is cultivated, change yearly. The soil of this valley is all alluvial, and a large portion of it depends on the nature of the deposit left by the yearly flood. The higher fields under the *bángar* cliff are generally of firmer soil and of better quality than those that are more subject to inundation; in some of the former cane is grown, while the commoner crops are cotton and *juár* followed by wheat and barley. In the lower-lying fields, wheat, barley, and peas are generally grown. These are for the most part unirrigated; and, if the deposit has been rich and the season otherwise good, the outturn is heavy, equalling that of first-class irrigated uplands; but if the deposit has been sandy and the season too moist, the outturn is light. Close to the river, in what seems to be pure sand, melon and cucumber cultivation is extensively carried on during the hot months; and in the vicinity of large towns, the cultivators are known to pay Rs. 5, and even more, per bigha for the right of using this land.

Irrigation is carried on principally from wells; the depth at which water is found varies considerably, but the average throughout the tahsíl, excluding the *khádar* portion that borders

Irrigation.

on the Jumna, is 45 feet. The area irrigated from rivers, *jhills*, and ponds in the *bángar* portion of the tahsíl is insignificant. There is at present no canal irrigation, but the Mát branch of the Ganges canal will, if completed, pass down the whole length of the tahsíl.

On account of the exceptionally dry character of the tahsíl, and the difficulty that attends irrigation owing to the distance of water from the surface, autumn crops are more sown than spring crops. By far the most important of the former are cotton and *juár*, and of the latter, wheat, barley, and *bejhar*. Sugarcane, rice, indigo, opium, and garden crops are very sparingly produced. The area sown with two crops (*do-fusli*) is 5·17 per cent. of the whole cultivated area.

The total area paying revenue owned by proprietors at the last settlement was 136,345 acres and the total revenue-free area was 15,399 acres. Of the former, 50,601 acres were held by Játs, 43,477 by Brahmans, 19,716 by Baniás, 6,941 by Thákurs, 4,773 by Musalmáns, 4,143 by Káyaths, 1,258 by Dhúsars, 580 by Ahírs, and the remainder by other castes. The number of distinct estates is 216, of which 18 are enjoyed revenue-free by religious persons or establishments, and 89 are in the hands of sole proprietors, as distinct from village communities. Of secular proprietors the wealthiest, as in most other parts of the country now-a-days, are self-made men of the Baniá caste. First in this order come Mahi Lál and Jánki Prasád of Ráya, descendants of Nand Rám, a petty trader of that town. Of much the same social standing is a family of Sanádh Brahmans at Jagdíspur, money-lenders by profession, who are gradually acquiring a considerable estate by the transfer to them of lands which, for the most part, they first held only on mortgage. The head of the firm in their native village is Harideva, with whom is associated in partnership his nephew, Chunni Lál. The Saiyids of Mahában, though of inferior wealth, have claims to a more ancient and honorable pedigree. The most prominent person among the Pachhauris of Gokhauruli is Kaliyán Sinh; the actual head of the family, his cousin the Thákuráni Prán Kunwar, has adopted one of his sons by name Rám Chand.

In the revenue-paying portion of the uplands, at the recent settlement, 33,251 acres were cultivated by proprietors as *sír*, 9 by ex-proprietary tenants, 44,804 by tenants with occupancy rights, and 34,796 by tenants-at-will. Játs held three-fourths of the *sír* area and more than half of the area cultivated by tenants. Next to them in importance come Brahmans, and then Chamárs and Baniás. Káchhis, here as elsewhere, pay the highest rates, but their aggregate holding is

insignificant. The average rate paid by tenants-at-will is 29 per cent. above the average rate realized from occupancy tenants, although the latter cultivate, on the whole, better land.

Mahában, as mentioned in Part I. (p. 3), was one of the 33 *maháls* of

Fiscal history.

sarkár Agra. In addition to its present area, it then contained what is now parganah Mát and part of parganah Sa'dabad. Immediately after the cession in 1803 it was attached to the Aligarh district, and was one of the parganahs held in farm by Thákur Dayarám of Háthras until 1808. In 1815, on the constitution of the sub-collectorate of Sa'dabad, it became part of it, and continued so till, in 1824, Sa'dabad was raised to the rank of an independent district. In 1832 it became part of the Muttra district. At the penultimate settlement, Mahában consisted of 102 villages (of which 15 were revenue-free), with a total area of 94,352 acres. Since then its boundaries have been enlarged by the addition of: tappás Ráya and Sonai, formerly recognized as two distinct sub-divisions; talukas Ar Laskárpur, Madim, and Sonkh, with three villages besides, from parganah Mursán; nine villages from parganah Mát; two villages from parganah Sa'dabad; and one village from Aligarh. The whole tahsil now consists of 105 revenue-paying and 14 revenue-free villages, together with six talukas containing 80 revenue-paying and three revenue-free estates. The names of the talukas are Ráya, Ayra-Khera, Sonai, Ar Laskarpur, Sonkh, and Madim. To give a history of the penultimate settlement would involve giving a separate history of each sub-division. It will be sufficient to remark that the demands of the first and last years of the settlement, for the tahsil as it now stands, were Rs. 2,84,656 and Rs. 2,88,633 respectively. Of the last (current) settlement, a full account will be found in the district memoir [*supra* pp. 123-128]. The demand for this tahsil is Rs. 3,14,287, which shows an increase over the demand of the last year of the expired settlement of Rs. 25,654, or nearly 9 per cent.

Mahában.—Chief town of the tahsil just described; is situated on the left bank of the Jumna, 5 miles south-east from Muttra. Latitude 27°-25'-50"; longitude 77°-46'-58". By the census of 1881 the area was 100 acres, with a total population of 6,182¹ (2,996 females), giving a density of 61 to the acre. The Hindus numbered 4,475 (2,102 females); Musalmáns, 1,704 (892 females); and others, 3 (2 females). Muttra and Mahában are closely connected by legend, for Krishna, though born at the one, was cradled at the other, and they both make their first appearance in history under the same unfortunate circumstances, having been sacked by Mahmúd of Ghazni in the

year 1017 A. D. From the effects of this catastrophe it would seem that Mahában was never able to recover itself, and at the present day, though the head-quarters of a large tahsil, it can scarcely be called more than a considerable village. A century or so ago it must have presented a still meaner appearance, as all the best private houses have been built quite recently. Neither are the temples of any antiquity: the largest and also the most sacred is that dedicated to Mathurá-Nath, which boasts a pyramidal tower (*sikhara*) of some height and size; but the material is brick and the design commonplace. A great part of the town is occupied by a high hill, partly natural and partly artificial, where stood the old fort. Upon its most elevated point is shown a small cell, called Syám Lálá, believed to mark the spot where Jasoda gave birth to Máya or Joganidra, substituted by Vasudeva for the infant Krishna. But by far the most interesting building is a covered court called the Assi-Khamba (eighty pillars) described in Part III. [*supra* p. 95]. There can be little doubt that Mahában was the site of some one or more Buddhist monasteries, since Fa Hian distinctly states that these establishments existed on both sides of the river, and fragments of Buddhist sculpture have occasionally been brought to light within the precincts of the fort. Whatever may be the exact Indian word concealed under the form Klisoboras or Clisoboras given by Arrian and Pliny as the name of the town between which and Muttra the Jumna flowed, it may be concluded with certainty that Mahában is the site intended. The town has a third-class police-station, an imperial post-office, and a tahsili school.

The watch and ward of the town is provided for by taxation under Act XX. of 1856. During 1881-82 the house-tax thereby imposed, together with a balance of Rs. 71-14-11 from the preceding year, gave a total income of Rs. 1,455-14-11. The expenditure, which was chiefly on police (Rs. 976-15-5), public works (Rs. 109-10-10), and conservancy (Rs. 144), amounted to Rs. 1,350-4-9. The returns showed 1,949 houses, of which 670 were assessed with the tax; the incidence being Rs. 2-0-11 per house assessed, and Rs. 0-3-2 per head of population.

Majhoi.—Agricultural village in the east of tahsil Kosi; distant 25 miles north-north-west from Muttra, and 11 miles north-east from Kosi. Latitude $27^{\circ} 51' 42''$; longitude $77^{\circ} 36' 20''$. Population (1881) 657 (293 females). It has a third-class police-station and a district post-office. It is situated on the right bank of the Jumna and is one of the confiscated Gújar villages. Two large groves serve to commemorate the names of Cháma and Saria, both members of that community. Two fairs in honor of Deví are held in Cháir (March-April) and Kuár (September-October.) There are also two *sam* *mandras*.

Mánikpur.—Railway station on the East Indian line known as the Jalasr-road station; is situated in tahsil Sa'dabad, 33 miles east-south-east from Mánikpur.

and 9 east from Sa'dabad. Latitude $27^{\circ}26'42''$; longitude $78^{\circ}12'46''$. Population 1881, 251 115 females).

Mát.—North-eastern tahsíl and parganah of the district, is bounded on the north and east by Aligarh; on the south by tahsíl Mahában; and on the west by the Jumna, which separates it from the tahsíls of Muttra, Chhátá, and Kosi. At the village of Jahán-girpur, however, the river is not the boundary, as, when by a sudden change of the stream some years since the *khádar* of that village was cut in half, it was awarded the portion that had gone over to the Muttra side. The total area in 1881-82 was 221.0 square miles, of which 175.4 were cultivated, 31.0 cultivable, and 14.6 barren; and the area paying Government revenue or quit-rent was 215.5 square miles (172.5 cultivated, 29.7 cultivable, 13.3 barren). The amount of payment to Government, whether land-revenue or quit-rent (including, where such exists, water-advantage, but not water-rates) was Rs. 2,72,522; or, with local rates and cesses, Rs. 3,06,576. The amount of rent, including local cesses, paid by cultivators was Rs. 4,64,872.

According to the census of 1881, the tahsíl contained 143 inhabited villages: of which 40 had less than 200 inhabitants; 39 between 200 and 500; 37 between 500 and 1,000; 20 between 1,000 and 2,000; 5 between 2,000 and 3,000; and 1 between 3,000 and 5,000. The only town containing more than 5,000 inhabitants was Surír (5,199). The total population was 95,446 (44,468 females), giving a density of 428 to the square mile. Classified according to religion, there were 89,346 Hindus (41,609 females), and 6,100 Musálmans (2,859 females).

The tahsíl is a long, narrow, straggling tract of country. Its extreme length from Piparauli on the south to Chaukra on the north is 28 miles, while its average breadth is only seven miles. Except from Bhadaura southwards, the Jumna ravines are nowhere deep or rugged along the present bank of the river. There are two large lakes in the tahsíl: one, which gives a name to the town of Noh Jhíl, is six miles in length and about a mile broad; the second, called Moti Jhíl, between Mát and Dángoli, is some two miles long and 300 yards broad. The greater part of both is brought under cultivation for *rabi* crops. The flooding of the Noh Jhíl lake generally induces sickness in the neighbourhood. It swarms with waterfowl, which are caught in nets and sold at Rs. $4\frac{1}{2}$ the hundred. The principal varieties of fish are *rohú*, *línchi*, *saul*, *singi*, and *jhínga*. The only stream in the tahsíl, besides the Jumna, is a tiny rivulet known as the Pat-wáha, which flows for a short time in the rainy season. In its *tarái* autumn

crops can be sown here and there; whilst in most places the actual bed is sown with spring crops. These depressions, with their line of ravines stretching back into the heart of the tahsil, naturally cause a prevalence of sandbanks and of lighter soil. In the north of the tahsil, especially west of the Patwāla, the lines of sand rise 20 or 30 feet above the general level, and form one of the chief features of the country. The following are given in the *Settlement Report* as the most important systems of sandhills:—

1. The hill starting from the edge of the Noh Jhil depression near Manigachi and passing into the Aligarh district.
2. The hill leaving the same depression near Nūrpur, running north to Awakhara, and thence north-east to Mithāuli.
3. The net-work in the re-entering curve of the depression already mentioned.
4. The line on the south of the Noh Jhil depression from Noh to Firozpur.
5. The line running up the right bank of the Patwāla, and combined with the ravines.
6. The line marking the edge of the present *khaddar* cliff in Bāgharra and Barauth, and in places down the whole length of the tahsil.
7. The system commencing in Nasithi on the south, and running thence north to Bhyasmal, and connected with the third of the old river-beds noted above.
8. The sandhills of Hasanpur and Nāoli.

sweet, brackish, salt, bitter, and bitter and oily. The last mentioned kind is found only in Muinuddīnpur and a few neighbouring villages; and the salt water is found along the edge of the old ravines as well as in isolated spots elsewhere.

Very little sugarcane and rice are grown in the tahsil. The principal rain crops are *judr*, *bījra*, Indian-corn, and cotton. Sesamum (*til*), *arhar* pulse, and hemp are also grown, but ordinarily in the same field with *judr*. The spring crops are wheat, barley, gram, and mustard; the latter is generally sown with wheat.

The total area paying revenue owned by proprietors was, at the last settlement, 138,775 acres, while the total revenue-free area was only 3,052 acres. Of the former, 46,572 acres were held by Jāts, 28,910 by Brahmans, 18,132 by Thākurs, 17,586 by Baniās, 7,094 by Musalmāns, 5,974 by Káyaths, and 1,419 by other castes; while 1,378 were dedicated to the Rangji temple, and 11,810 to the Dwārkādhis temple. The subdivision of property in this tahsil is very minute. The number of separate estates is 153, the great majority being *bhaiyāchūra*. The richest resident landlords are the members of a Brahman family of the yeoman class; their names are Pola Rām and Parasurām. Three other men of substance, of much the same social position, are Lachhman, Serhu, and Lalā Rām; the two former are Brahmans, and the last is a Baniā. The principal non-resident proprietors are Rao Abdullah Khān of Aligarh, the rāja of Mursān, and Lālas Mahi Lāl and Jānki Prasād.

In the revenue-paying portion of the tahsil 34,360 acres were, at the recent settlement, cultivated by proprietors as *str*, 266 by ex-proprietary tenants, 20,792 by resident tenants with occupancy rights, 4,537 by non-resident tenants with occupancy rights, 39,309 by resident tenants-at-will, and 11,024 by non-resident tenants-at-will; while 1,055 acres were rent-free land granted by zamīndārs, and 505 cultivated gardens. The principal cultivators were Brahmans, Jāts, Thākurs, Muhammadans, Chamārs, Baniās, Gadariās, Barhāis, Kāchhīs, Nāis, and Mallhās. The average rate of rent paid by tenants in the south of the tahsil was Rs. 6-1-5 by ex-proprietary tenants, Rs. 4-2-9 by occupancy tenants, and Rs. 5-2-7 by tenants-at-will; while in the north of the tahsil the rates were much lower, viz., Rs. 5-8-9 were paid by ex-proprietary tenants, Rs. 3-1-3 by occupancy tenants, and Rs. 3-14-3 by tenants-at-will.

The parganahs of Noh Jhil and Māt were amalgamated into one tahsil in 1861. In the time of Akbar, Māt proper came under Mahābān, and Noh Jhil formed part of pargana Noh in the Kol

sarkár. Immediately before its cession in 1801, Noh Jhíl was the estate of General Perron, while Mát was held by General DuPoigne. The former was first attached, as a temporary measure, to the Fatchgarh, and the latter to the Etáwah division; but they were, on the constitution of the Aligarh district in 1804, incorporated in it. In 1805, they were farmed to Ramnás Khán, who, in 1807, was outlawed and expelled by General Dicken, for his attack on the villages of Musmina. On this a zamindari settlement of the parganahs was concluded. In 1821 both parganahs were transferred to the Sa'dabad (now Muttra) district. During the Mutiny, there was some disaffection in this tahsil; the rebels were led by Umráo Bahádur, who was killed at Delhi. His estates, some eighteen villages in all, were conferred upon Seth Lakhmi Chand free for life. On his death, the grant was further extended to his son, Seth Raghunáth Dás, on payment of half the Government demand. An account of the successive settlements of this tahsil will be found in Part III. [*supra* pp. 117-128].

Mát.—Chief town of tahsil just described, is situated not far from the left bank of the Jumna, 12 miles north from Muttra. Latitude $27^{\circ} 5' - 42' 56''$; longitude $77^{\circ} 44' - 56' 05''$. Population (1881) 2,550 (1,136 females). The township is divided into two parts, called Rája and Múla. The landed proprietors were originally all Brahmans and Thákurs, but some Muhammadans are now in possession of part as mortgagees. There is an old mud fort, and within its enclosure stands the tahsili and police-station. Though it gives its name to the tahsil, it is a small and unimportant place. An unmetalled road carried over very broken and raviny ground, and therefore requiring extensive repairs after every rainy season, connects it with the Brindában bridge of boats, $3\frac{1}{2}$ miles lower down the stream. It is one of the stations in the Hindu pilgrimage of the *Banyátrá*, and is said to derive its name from the milk-pans (*mát*) here upset by Krishna in his childish play. In the subordinate hamlet of Chahiri, a little higher up the stream, is the sacred grove of Bhandírbán, a dense thicket of *ber* and other low prickly shrubs, with a small modern temple, rest-house, and well, in an open space in the centre. Just outside is an ancient fig-tree (*bat*) which Krishna and his playmates Balaráma and Sudáma are said to have made their goal when they ran races against each other. A large fair, chiefly attended by Bengalis, is held here in Chait (March-April), and is called the *Gwál-mandala*. The temple in the grove is dedicated to Bihári Ji; that under the Bhandírbat to Sudáma. In the town are three other small shrines dedicated to Rádha-Mohan, Gopalji, and Mahádeva. Two mosques have also recently been built. In the Mutiny, the only act of violence committed was the seizure of six grain-boats passing down the river, for which the zamindárs were subsequently

finer. Besides the third-class police-station, there is an imperial post-office in the town, and a market is held on Tuesdays.

The watch and ward of the town is provided for by taxation under Act XX. of 1856. During 1881-82 the house-tax thereby imposed, together with a balance of Rs. 14-7-0 from the preceding year, gave a total income of Rs. 665-7-0. The expenditure, which was chiefly on police (Rs. 479-4-10), public works (Rs. 3-8-0), and conservancy (Rs. 72-0-0), amounted to Rs. 639-10-11. The returns showed 1,088 houses, of which 513 were assessed with the tax; the incidence being Rs. 1-4-4 per house assessed, and Re. 0-2-2 per head of population.

Mirhāvālī.—Agricultural village in tahsíl Sa'dabad; distant 19 miles south-east from Muttra, and 11 miles south-west from Sa'dabad. Latitude 27°-19'-19"; longitude 77°-58'-25". Population (1881) 2,287 (957 females).

Muttra (or, correctly spelt, **Mathurá**).—Head-quarters tahsíl and pargana, situated in the south-western corner of the district: is bounded on the north by tahsíl Ohhāta; on the east by the Jumna; and on the south and west by the State of Bhartpur. Its maximum extent from east to west is 23 miles, and from north to south 20 miles. It is the largest tahsíl in the district, and had, in 1881-82, a total area of 396·6 square miles. Of this 281·5 square miles were cultivated, 86·0 cultivable, and 29·1 barren. The area paying Government revenue or quit-rent was 332·3 square miles (233·8 cultivated, 74·3 cultivable, 24·2 barren). The amount of payment to Government, whether land-revenue or quit-rent (including, where such exists, water-advantage, but not water-rates) was Rs. 3,33,219; or, with local rates and cesses, Rs. 3,80,018. The amount of rent, including local cesses, paid by cultivators was Rs. 6,68,698.

According to the census of 1881, the tahsíl contained 229 inhabited villages: of which 42 had less than 200 inhabitants; 79 between 200 and 500; 73 between 500 and 1,000; 19 between 1,000 and 2,000; 6 between 2,000 and 3,000; and 8 between 3,000 and 5,000. The towns containing more than 5,000 inhabitants were Muttra (47,483) and Brindában (21,467). The total population was 220,307 (102,402 females), giving a density of 549 to the square mile. Classified according to religion, there were 196,699 Hindús (91,533 females); 22,905 Musalmáns (10,581 females); 331 Jains (170 females); 328 Christians (106 females); and 44 others (12 females).

The tahsíl extends from the Jumna on the east to the foot of the Bhartpur hills on the north-west. Within it the chief line of hills is the Giri-Ráj of Gobardhan which runs parallel to the Bhartpur range. It is about five miles long, and stands about a hundred feet above the plain at its southern end, while at the north it is little

more than a heap of stones. The whole of this hill is of the greatest sanctity, being celebrated in the mythological legends in connection with Krishna, and numerous temples stand on it. It is covered with scanty vegetation, and exercises little influence on the character of the soil in the vicinity. It is otherwise with the Bhartpur hills, since for some two or three miles before they are reached, the soil becomes light and sandy. To the east the Jumna's influence is apparent for three miles inland, and low alluvial soil, ravines, and sandy downs are found along its banks. From the line where the Jumna ceases to affect the character of the soil up to the line within which the soil shows the effect of the neighbourhood of the Bhartpur hills, the whole country is one flat uniform plain, without a single river or stream. The general soil is a firm *piliya*, broken only in places by narrow veins of sand and an old hillock of *pūth*. Except in the lines of drainage known as the western depressions, the inundated area is generally insignificant. Of trees, the *nīm*, *babūl*, and *kadamb*, are the most common indigenous ones in the tahsíl.

With the exception of the Jumna, there are no rivers of any importance from an irrigation point of view, and there are no *jhills* and marshes. The average depth of water over the whole tahsíl is 49 feet; and there is a large tract to the north-west towards and beyond Rádhákund where the depth at which water is found varies from as much as 50 to 62 feet. It is thus a matter of considerable expense to sink a well, more especially as the sandiness of the soil ordinarily necessitates the construction of a masonry cylinder. Irrigation was, consequently, little resorted to at the time of the recent settlement. The one great need of the country was water, but this has now been supplied by the Agra canal, which has proved a great boon to the agriculturist. It runs down the centre of the tahsíl, in which it has a length of 16 miles, and crosses the Díg road close to the town of Aríng.

The principal crops are tobacco, sugarcane, gram, cotton, and barley. *Bájra* and *juár* are also largely grown, though not ordinarily to such an extent as those above named. Wheat here forms an average crop, though it is scarcely seen in the adjoining tahsíls. The cold-weather instalment of the Government demand is realized principally from the outturn of cotton. The average yield per acre is calculated at one maund of cotton, seven of *juár*, three of *bájra*, six of wheat, eight of barley, five of gram, eight of tobacco, and ten and a half of *gur* from sugarcane. The cost of cultivation per acre for *khartíf* crops is estimated at Rs. 7, and for *rabi* crops at Rs. 10.

Omitting from consideration the 84 villages transferred to this tahsil from the Farah tahsil of the Agra district, 35,512 acres of land were, at the recent settlement, owned by Jâts, 34,869 by Brahmans, 27,352 by Thákurs, 17,725 by Baniás, 6,774 by Káyaths, 4,336 by Muhammádans, 788 by Dhúsars, 561 by Gújars, and the remainder by other castes. The principal landed proprietors are the trustees of the Seth's temple at Brindában; Gosáin Purnshottam Lál of Gokul; the rája of Awa; the heirs of the Lálá Bábu, in Calcutta; and Seths Ghansyám Dás and Gobardhan Dás of Muttra. Not one of them is actually resident in any of his villages.

Again omitting from consideration the 84 villages transferred from the Agra district, 30,059 acres of land in this tahsil were, at the recent settlement, cultivated by proprietors as *sír*, 18,030 by resident tenants with occupancy rights, 2,202 by non-resident tenants with occupancy rights, 42,999 by resident tenants-at-will, and 16,321 by non-resident tenants-at-will, while 1,509 acres were rent-free land granted by zamíndárs. Either as tenants or owners of *sír* land, Jâts, Thákurs, Brahmans, Chamárs, and Muhammadans held between them almost nine-tenths of the cultivated area. The Jâts, who cultivated 35,463 acres, are just as industrious and skilful as the Doáb Jâts, but the other cultivators in the tahsil are very inferior to them. The Rájputs and Musalmáns are wretched cultivators; and the Brahmans and Chamárs, although better than the Rájputs, are after all only moderately good farmers. The only other castes that affect the agricultural character of the tahsil are Lodhás, Káchhís, Gadariás, Gújars, and Ahírs; but the area cultivated by each of these castes is less than 2 per cent. of the whole cultivated area.

During the supremacy of the Jâts and the Marhattas in the last century, the present tahsil was in five divisions, Aríng, Gobardhan, Sonkh, Sousa, and Muttra. All five were ceded to the East India Company by Daulat Ráo Sindhia, in 1803. The greater part of Aríng was then included in Sahár. Gobardhan, immediately after the cession, was granted free of assessment to Kunwar Lachhman Singh, a son of Rájá Ranjit Singh, of Bhartpur; but in 1826, by Regulation V. of that year, it was annexed to the Agra district. Sonkh and Sousa were first made over to the rája of Bhartpur; but by the treaty of 17th April, 1805, they were resumed, annexed to the Company's dominions by Regulation XII. of 1806, and placed under the jurisdiction of the collector of Agra. They were, however, immediately made over to Sindhia as a *jágír* for his wife and daughter, and not finally resumed until 1808. On the formation of the Muttra district in 1832, these *parganahs*

Landholders.

Tenants.

Fiscal history.

